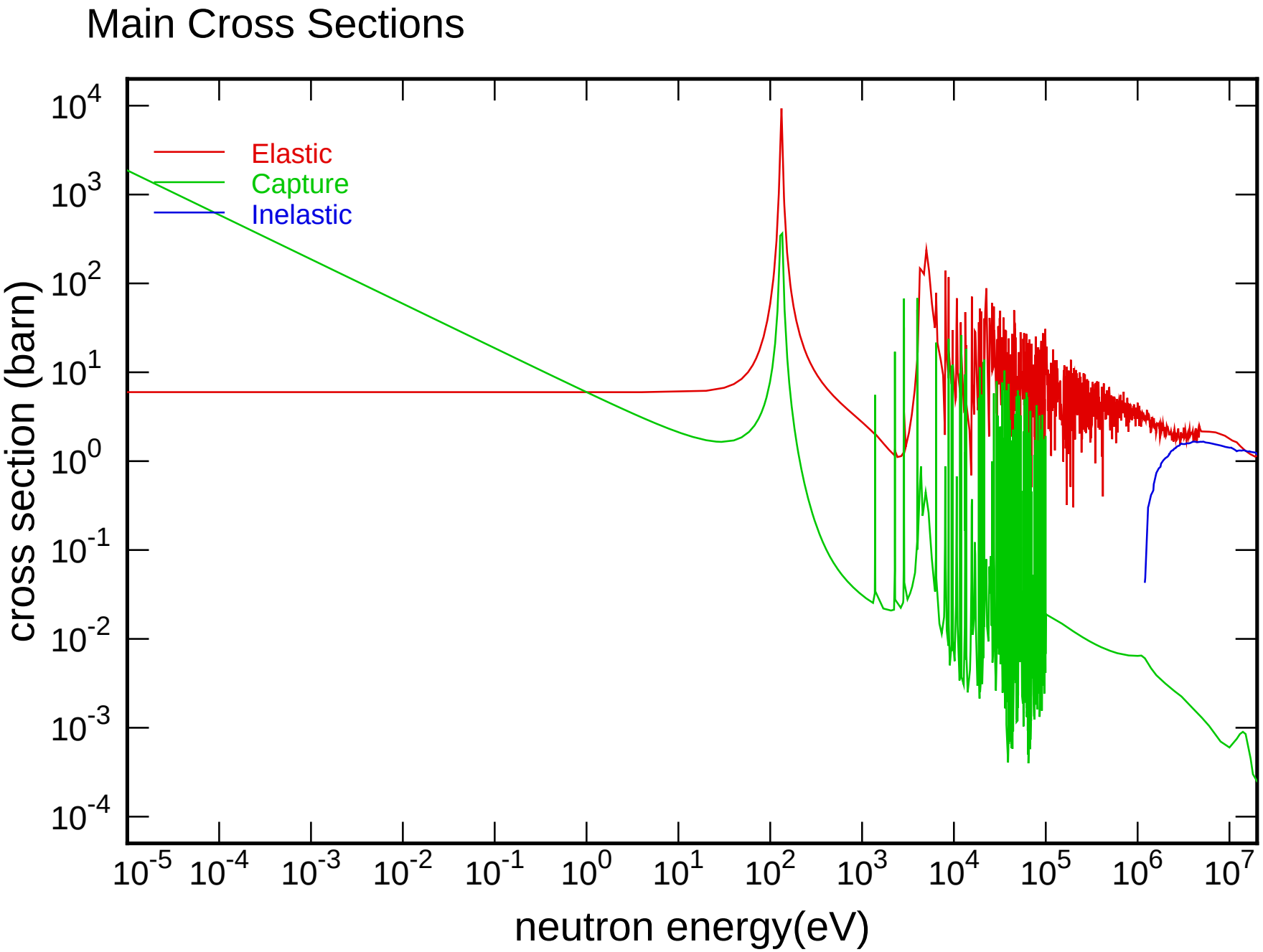
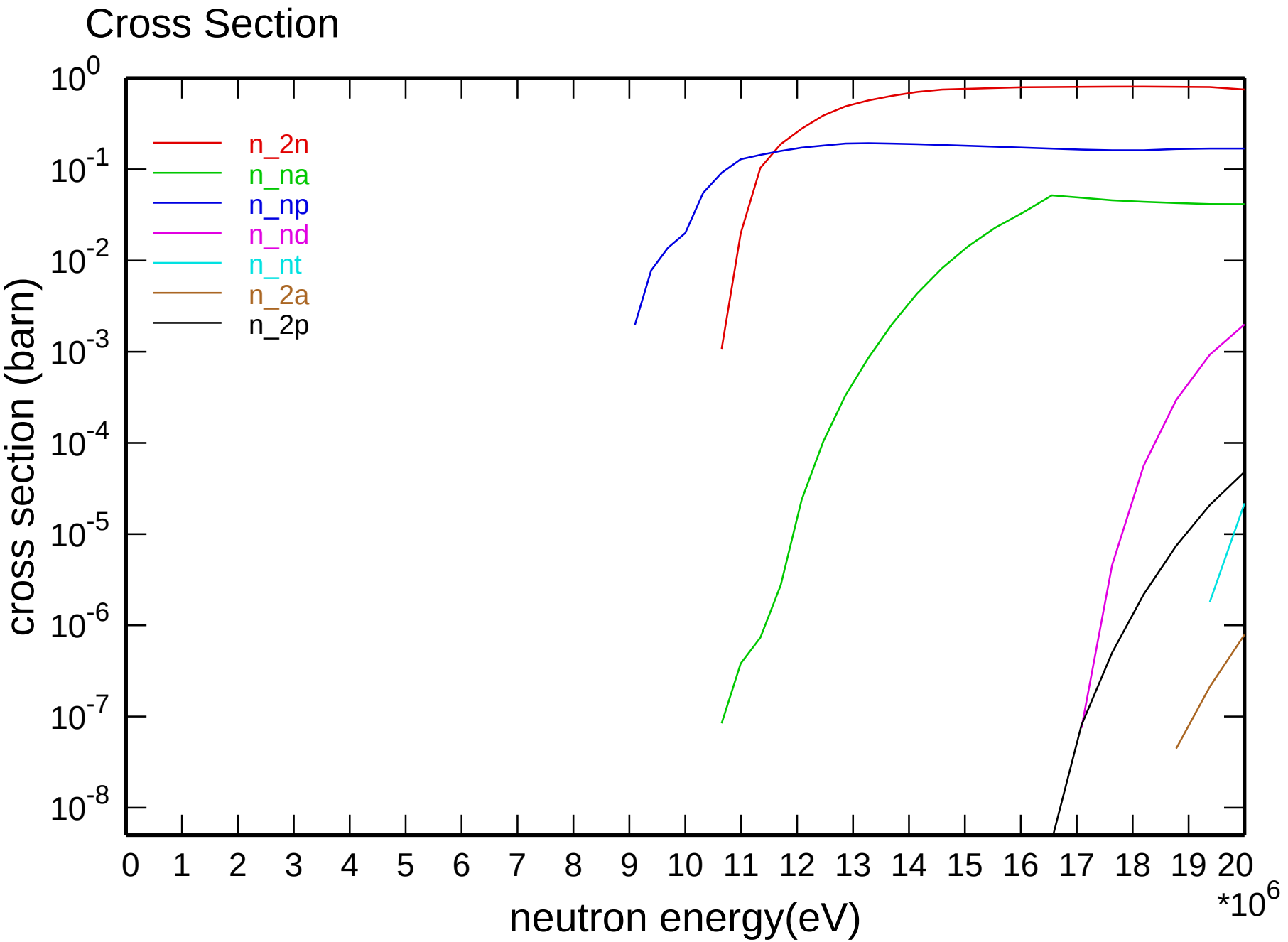
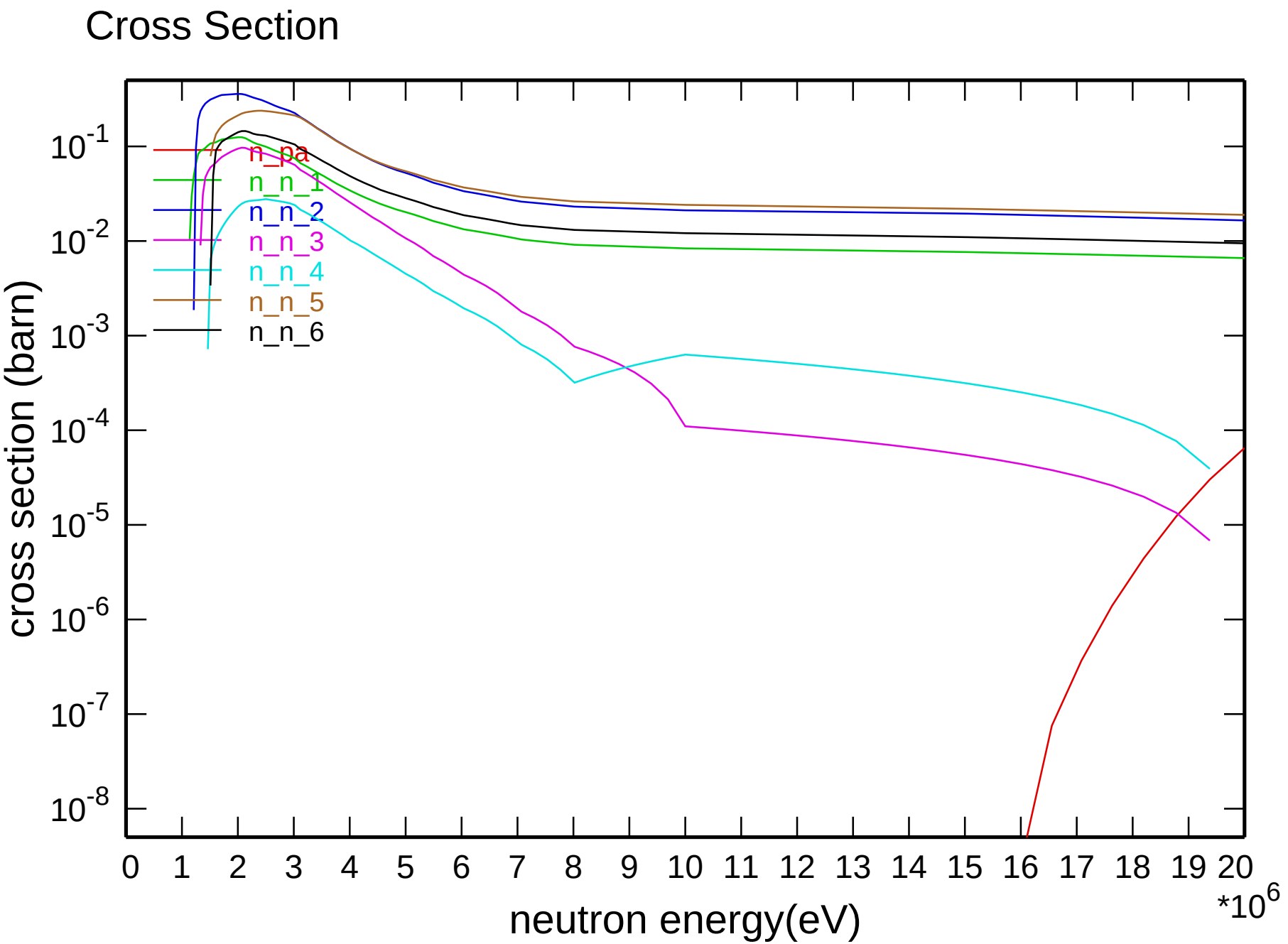
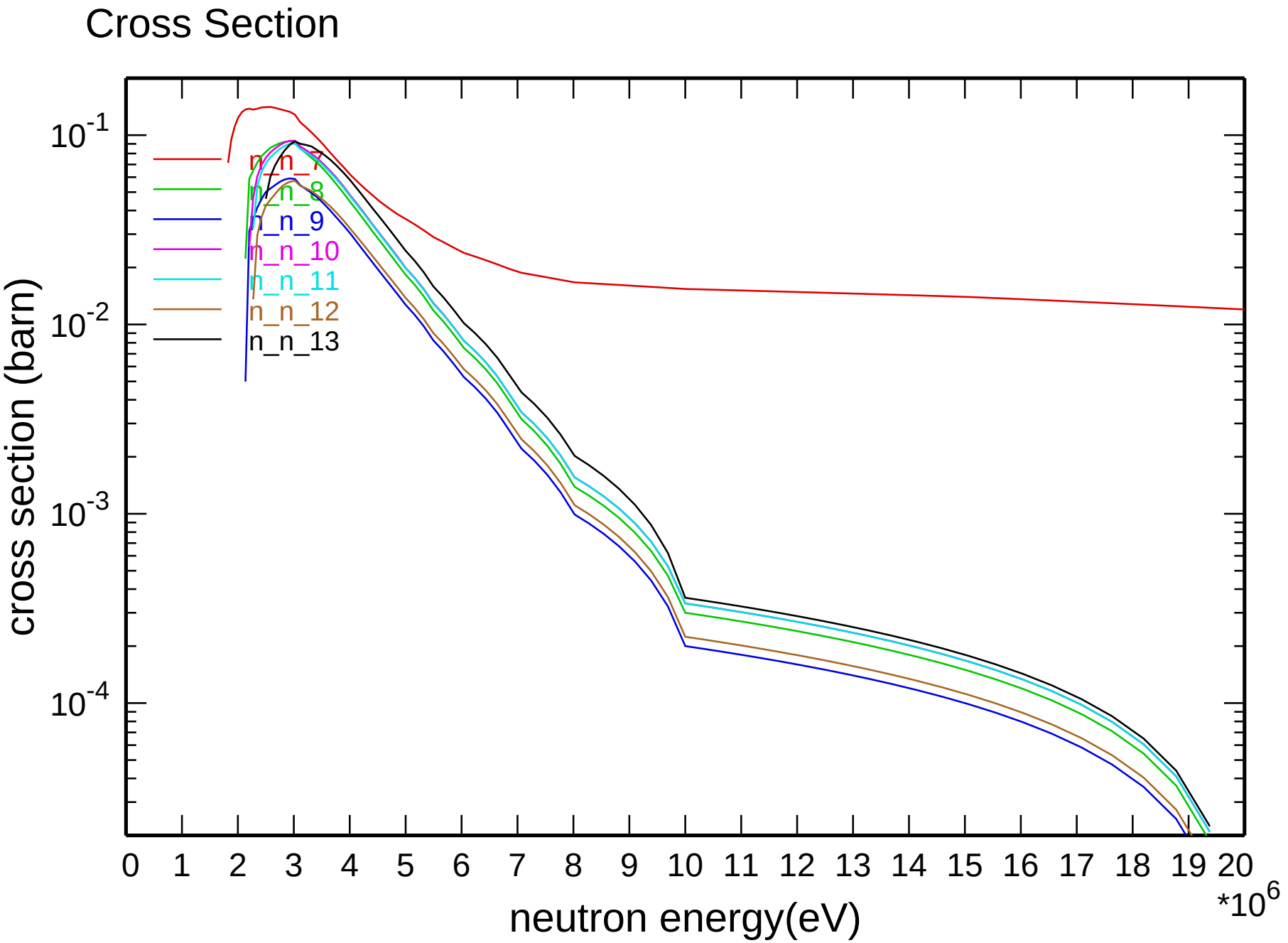
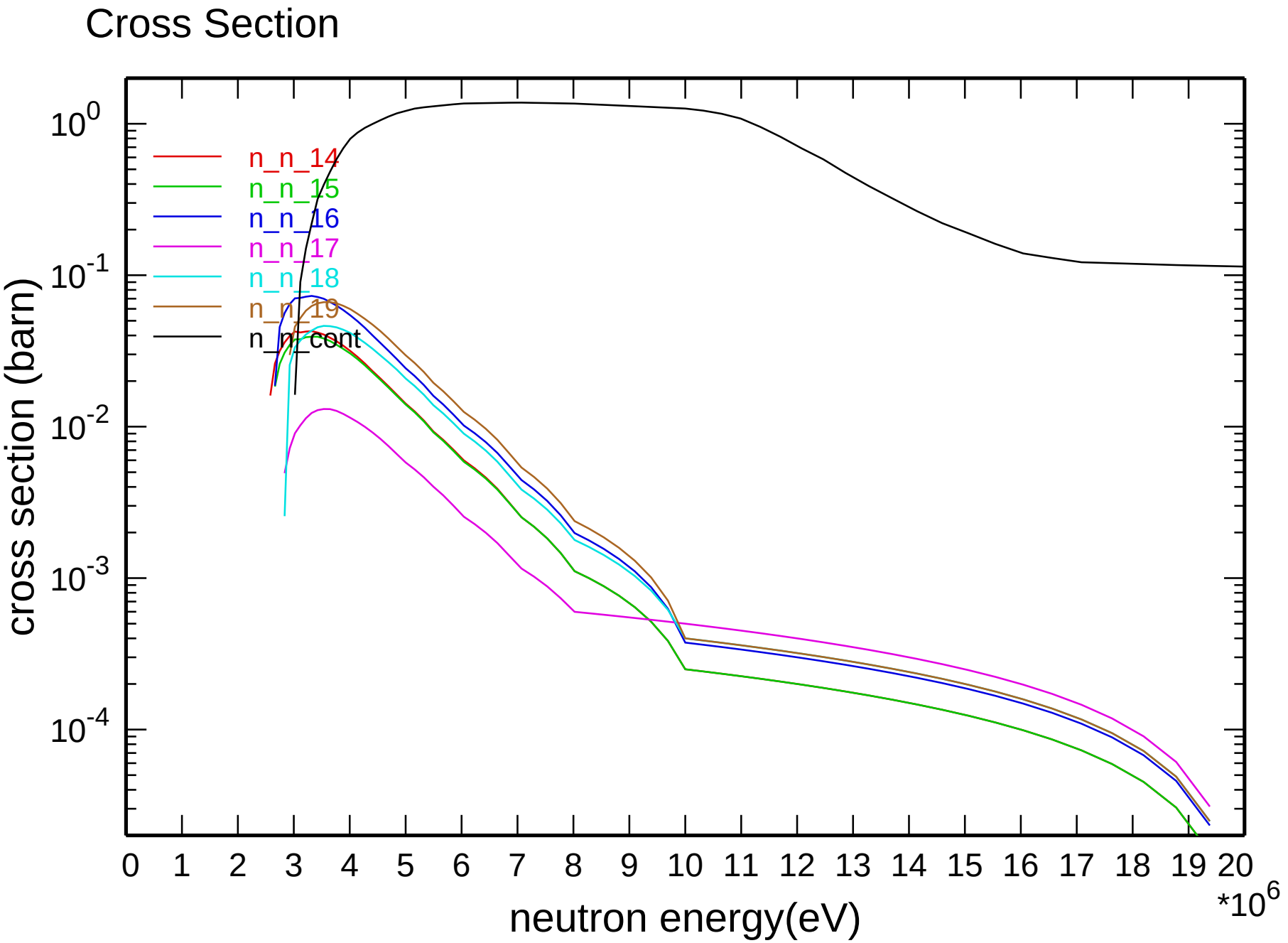
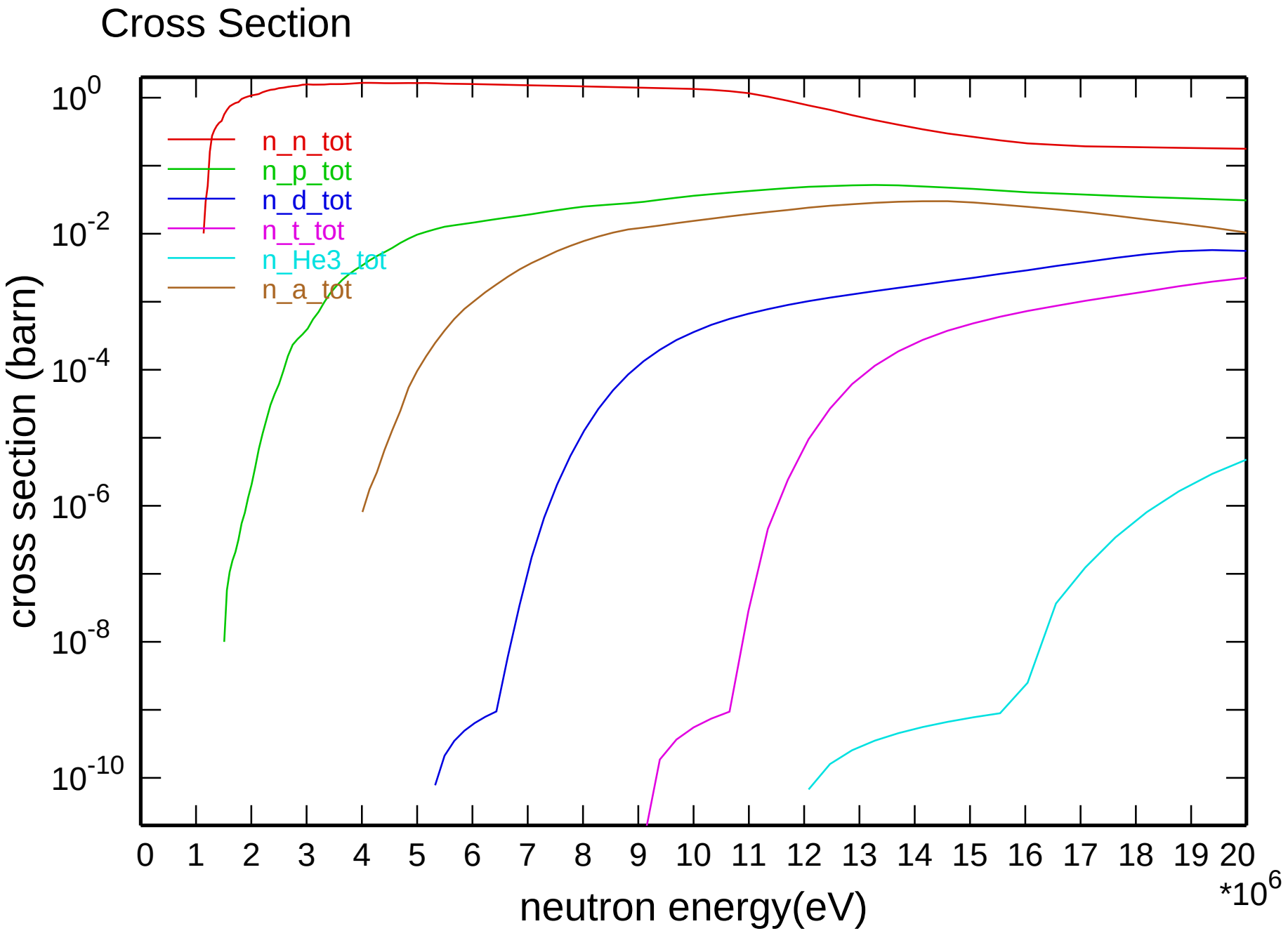

Main Cross Sections
Elastic
Capture
Inelastic
cross section (barn)
neutron energy(eV)
10^4
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7

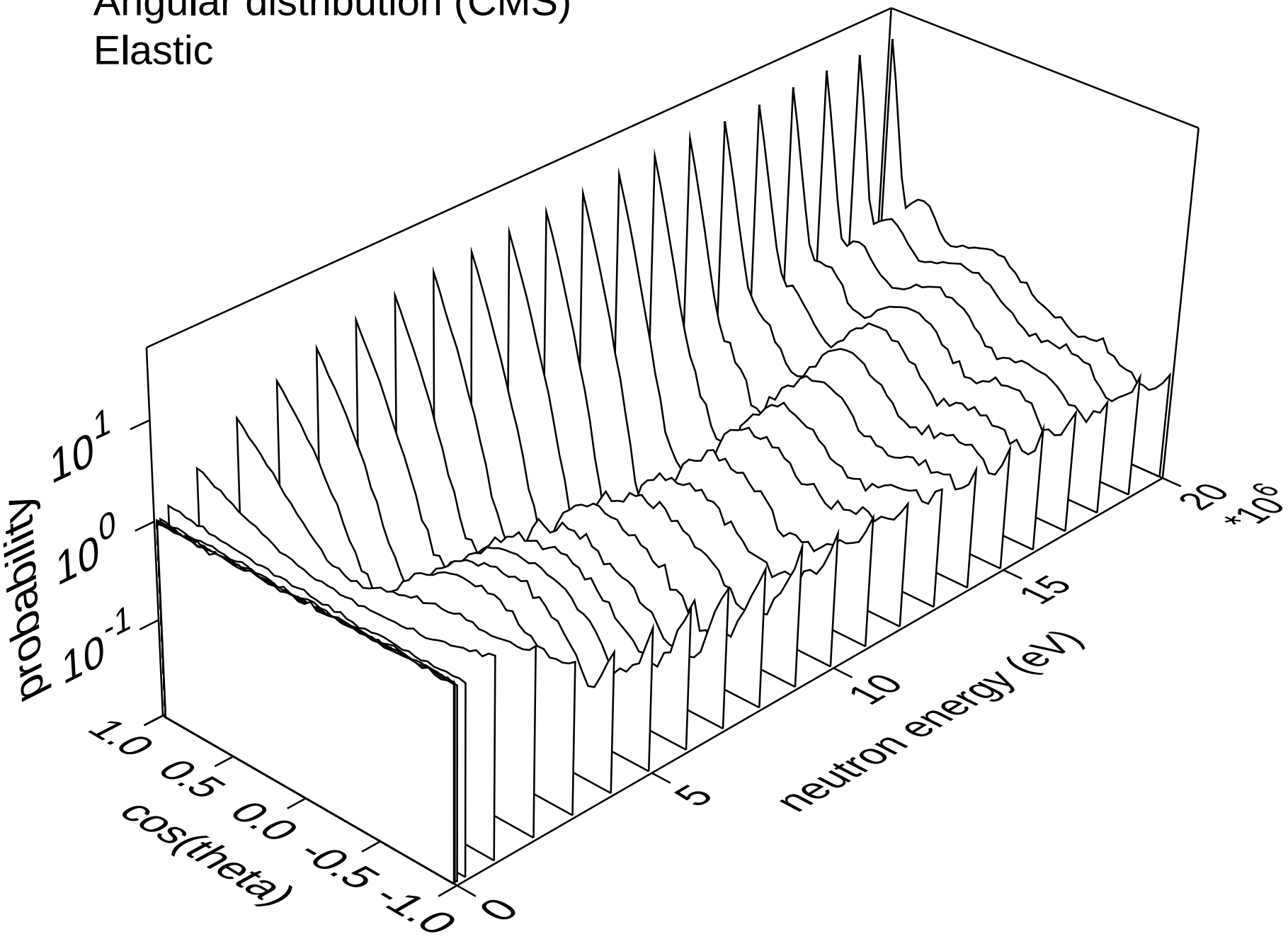

Cross Section
cross section (barn)
neutron energy(eV)
*10^6
n_2n
n_na
n_np
n_nd
n_nt
n_2a
n_2p
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-6
10^-7
10^-8
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

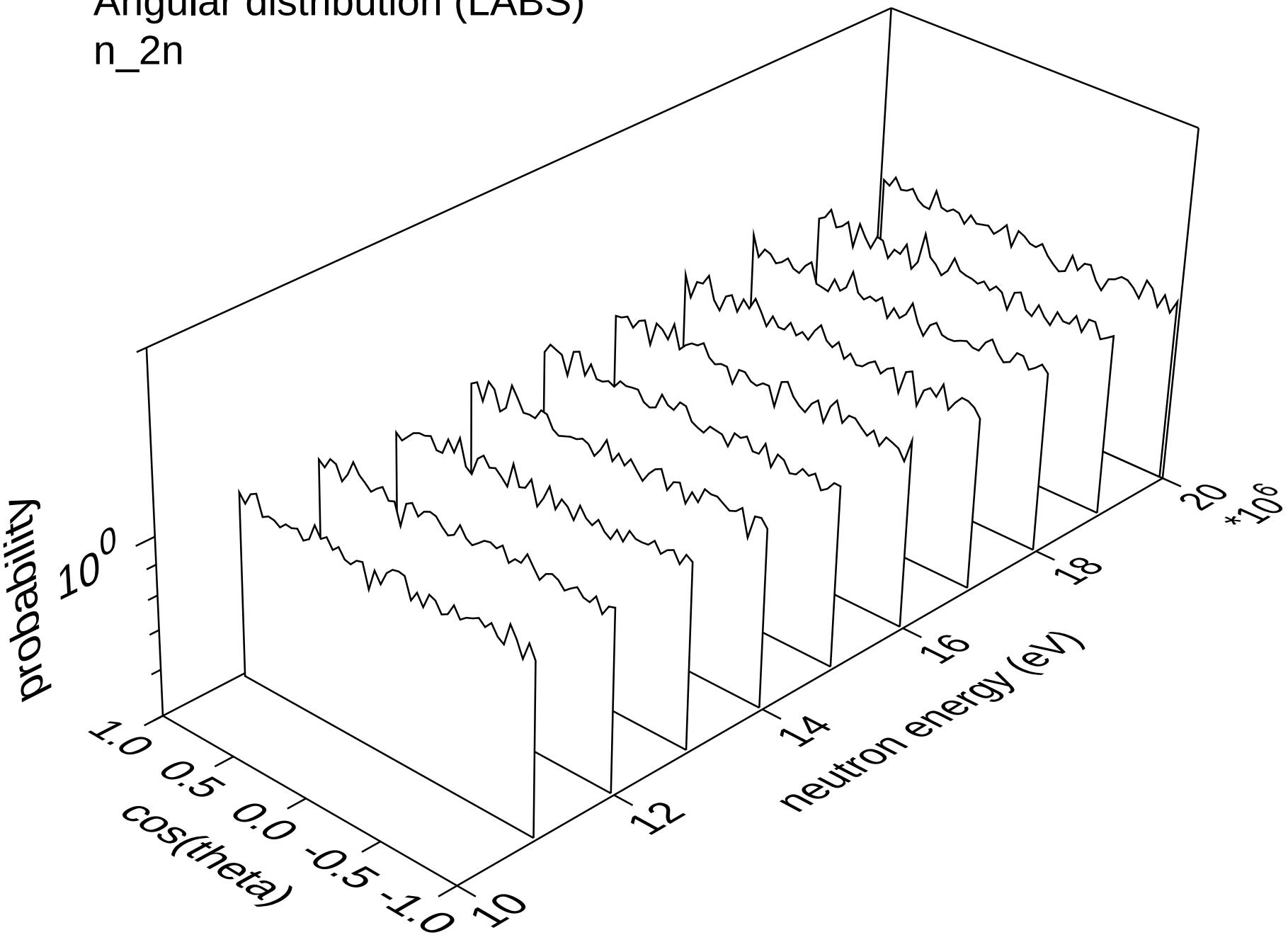

Cross Section
cross section (barn)
neutron energy(eV)
*10^6
n_pa
n_n_1
n_n_2
n_n_3
n_n_4
n_n_5
n_n_6
10^-1
10^-2
10^-3
10^-4
10^-5
10^-6
10^-7
10^-8
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

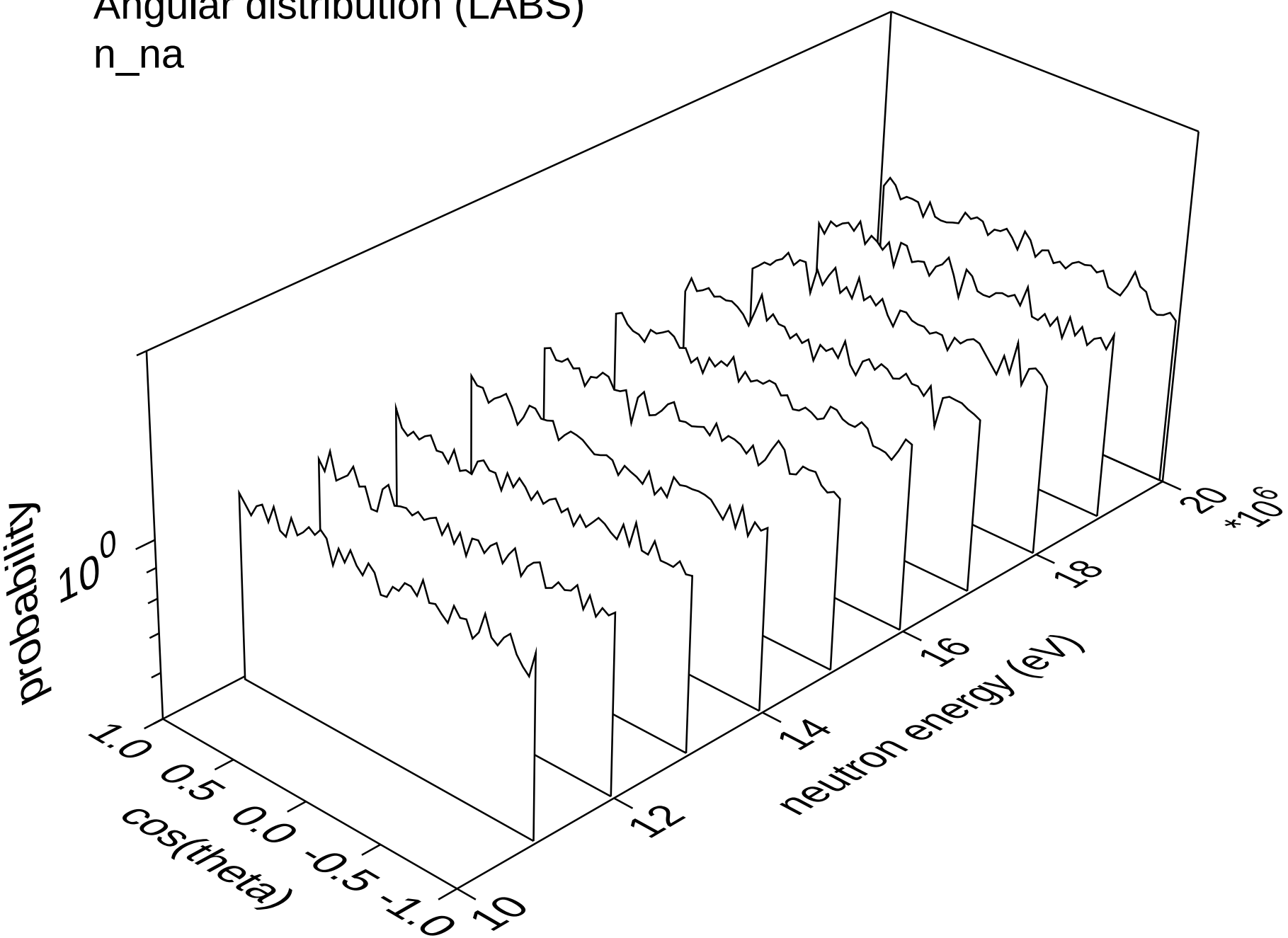

Cross Section
cross section (barn)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
n_n_7
n_n_8
n_n_9
n_n_10
n_n_11
n_n_12
n_n_13
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*10^{6}
neutron energy(eV)

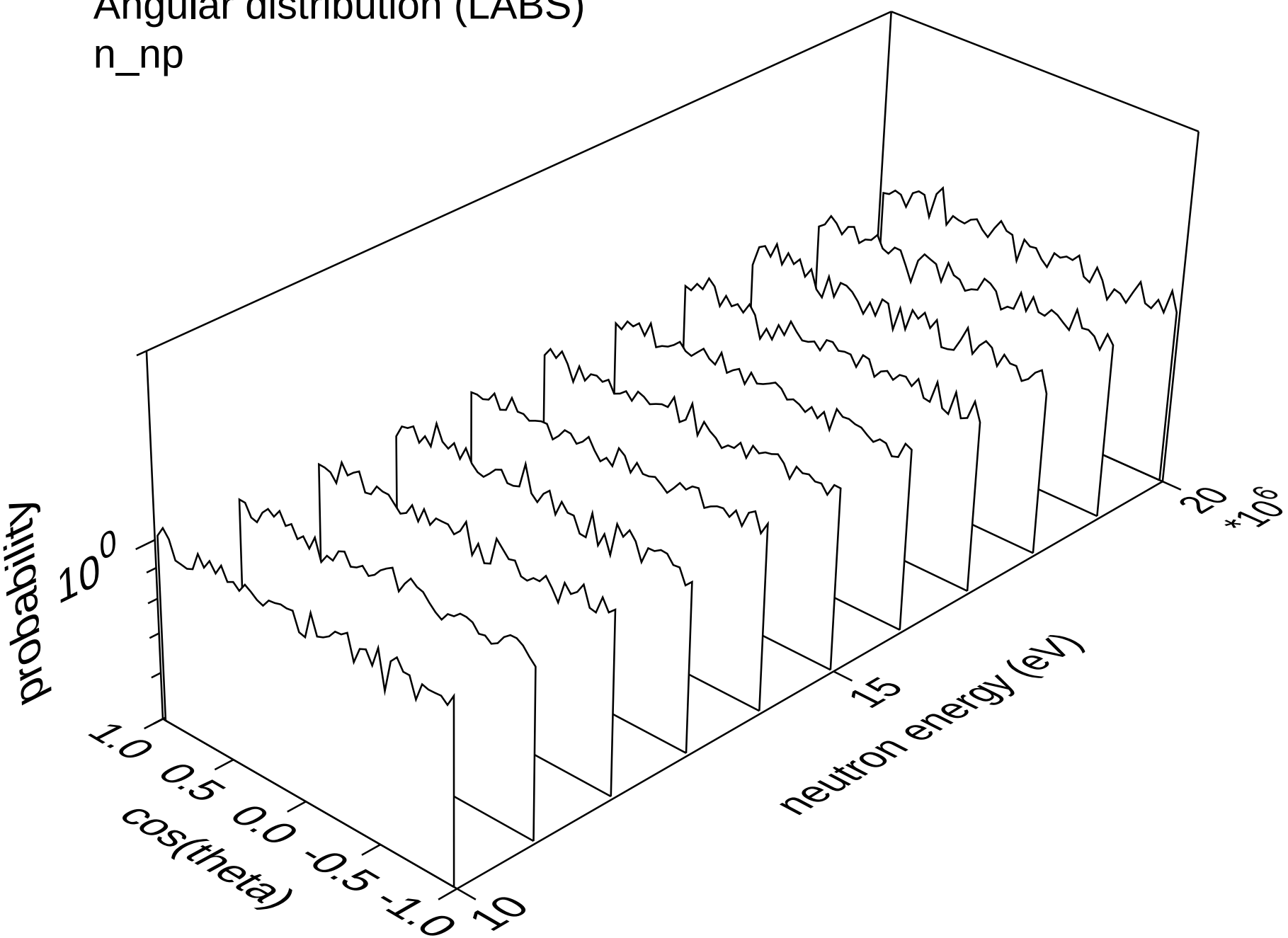

Cross Section
cross section (barn)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
n_n_14
n_n_15
n_n_16
n_n_17
n_n_18
n_n_19
n_n_cont
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*10^{6}
neutron energy(eV)

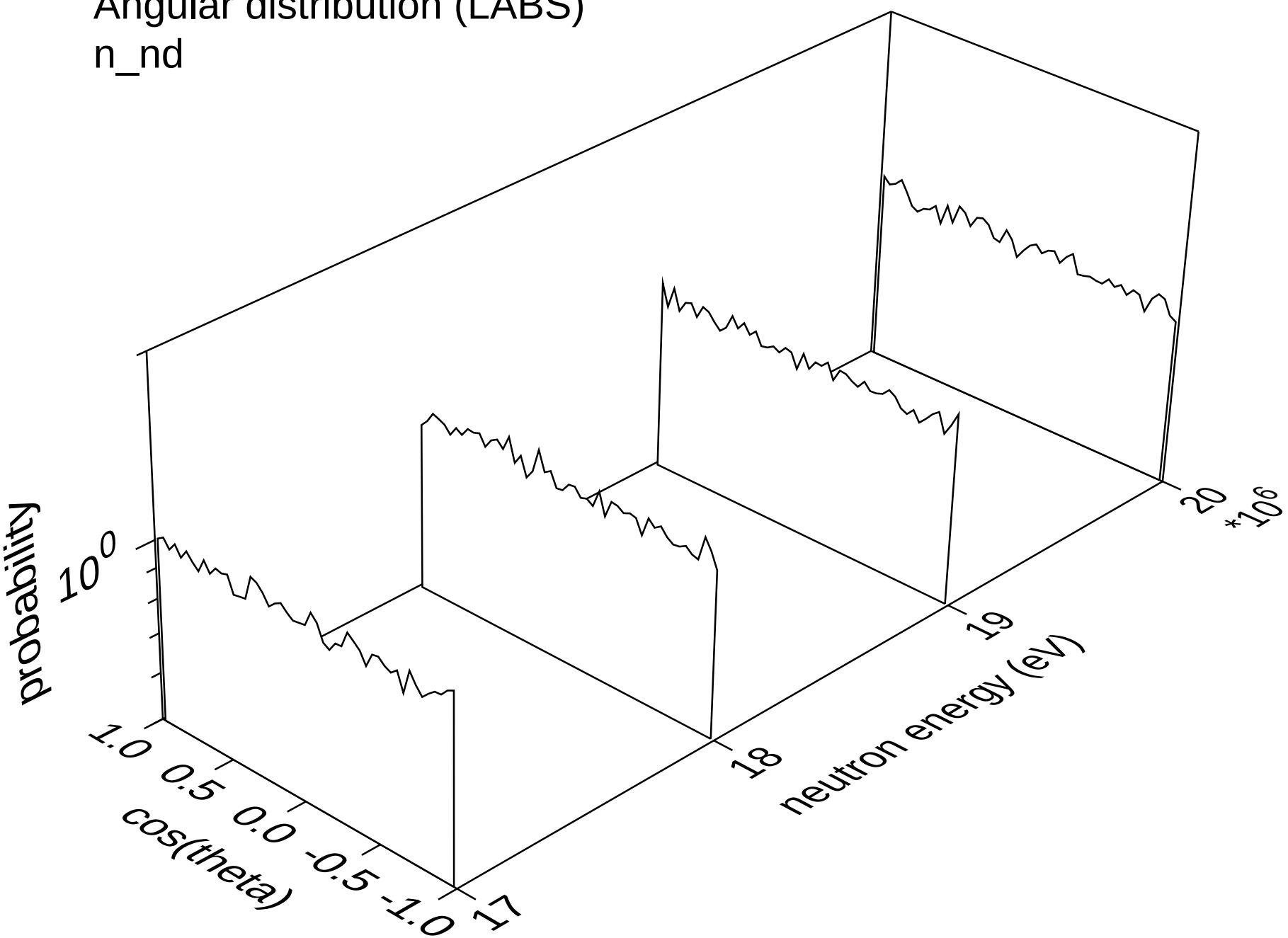

Cross Section
n_n_tot
n_p_tot
n_d_tot
n_t_tot
n_He3_tot
n_a_tot
cross section (barn)
10^{0}
10^{-2}
10^{-4}
10^{-6}
10^{-8}
10^{-10}
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*10^{6}
neutron energy(eV)

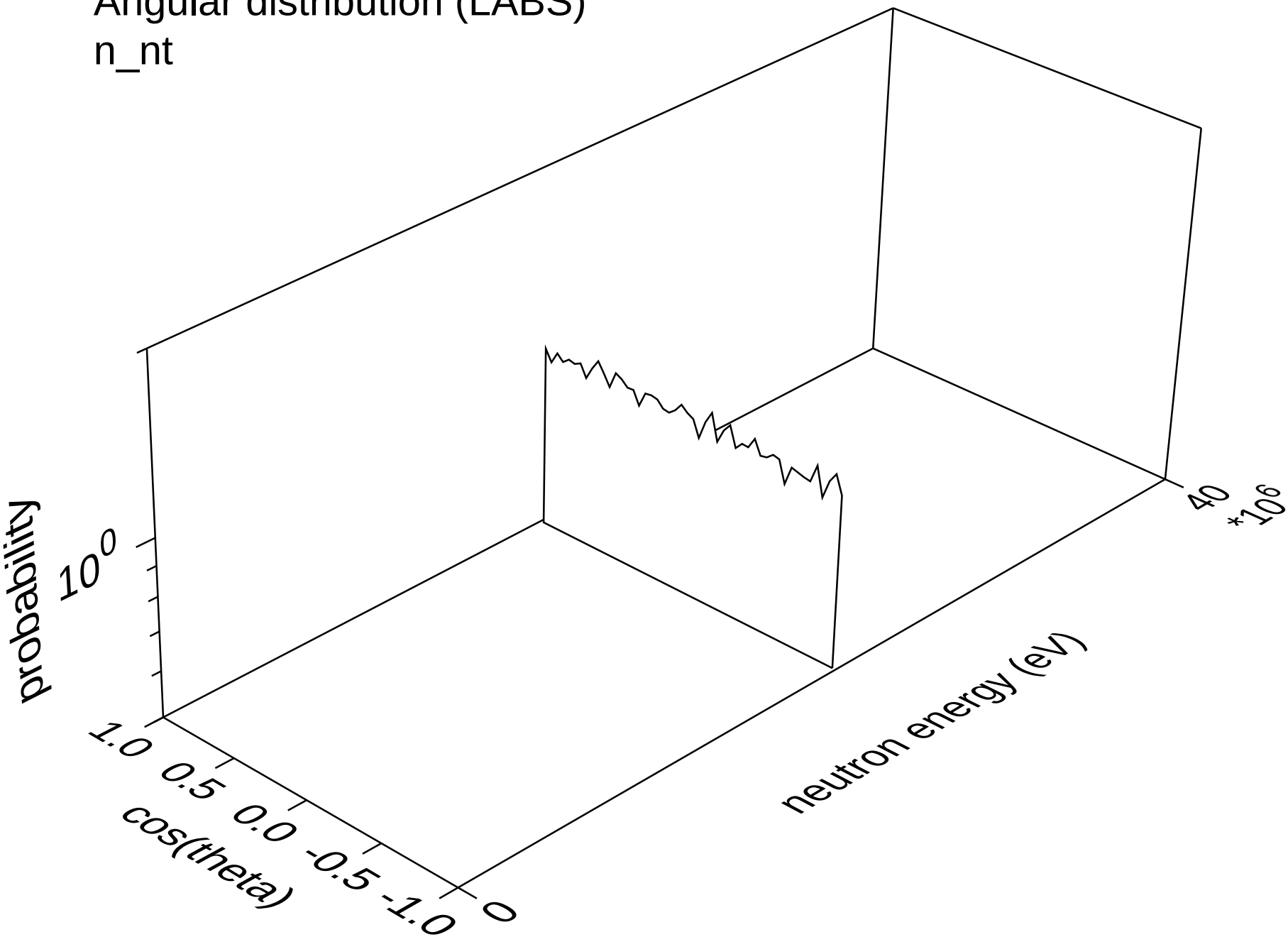

Angular distribution (CMS)
Elastic
probability
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

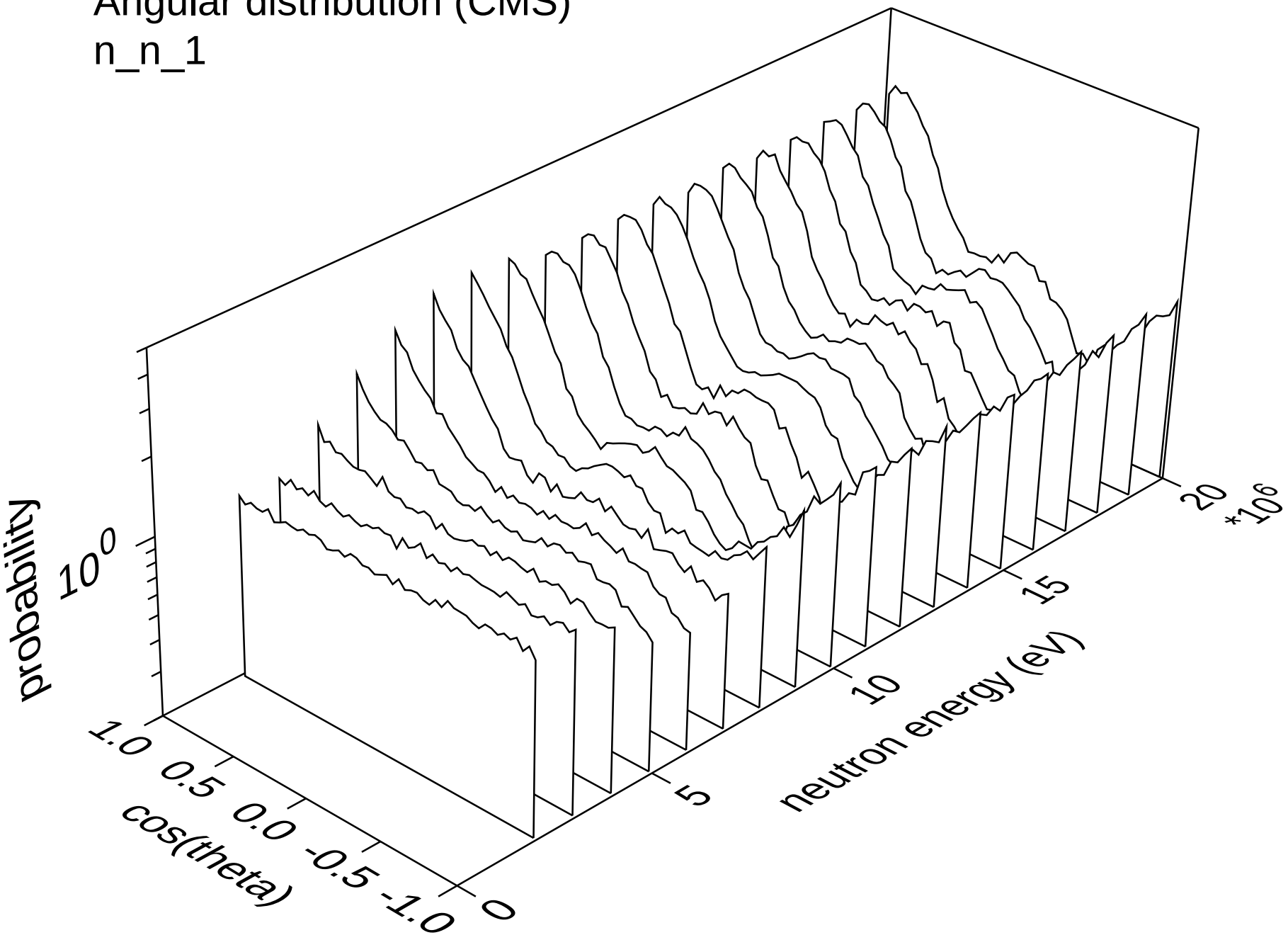

Angular distribution (LABS)
n_2n
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
10
12
14
16
18
20
*10^6
neutron energy (eV)

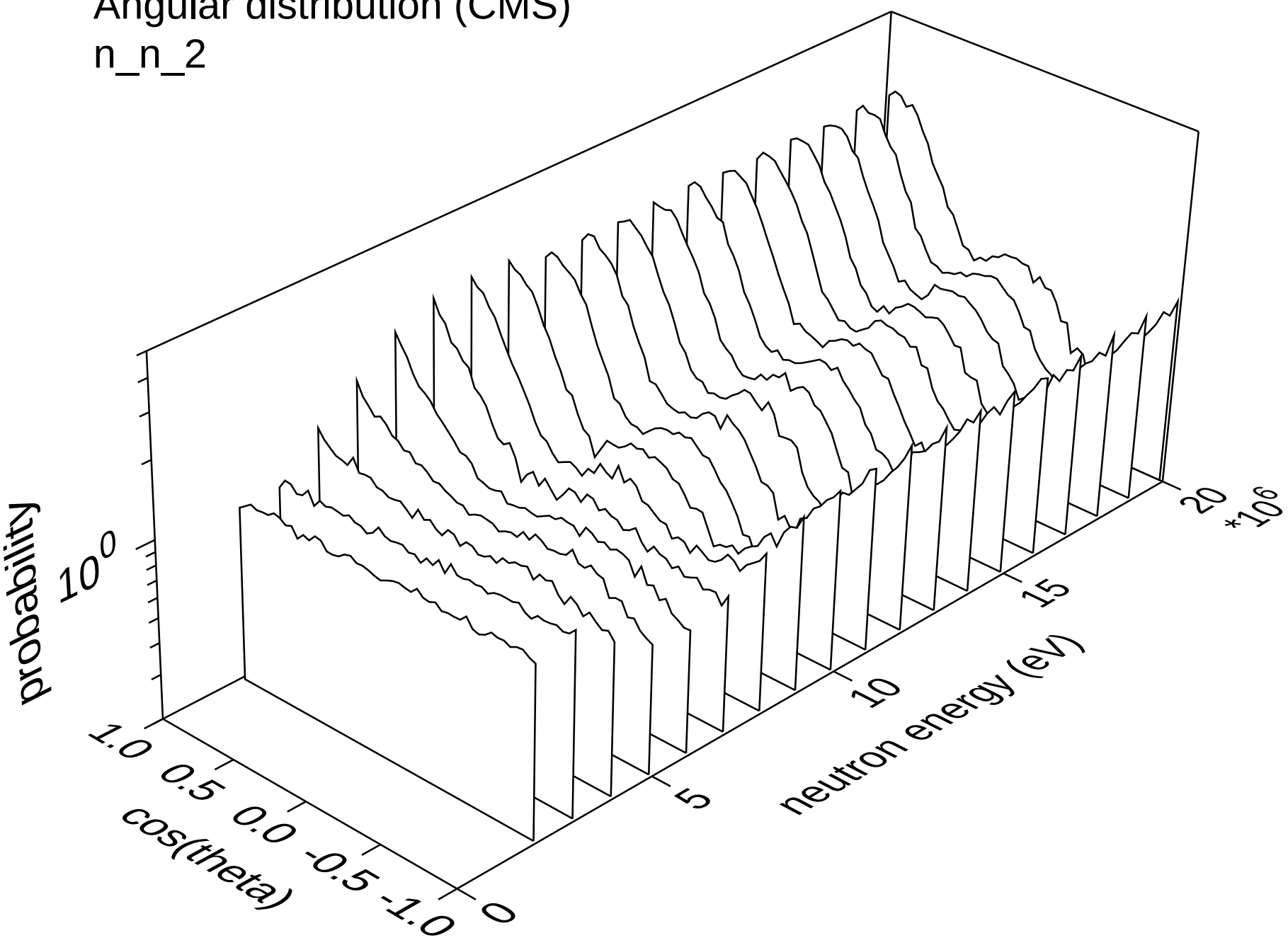

Angular distribution (LABS)
n_na
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
10
12
14
16
18
20
*10^6
neutron energy (eV)

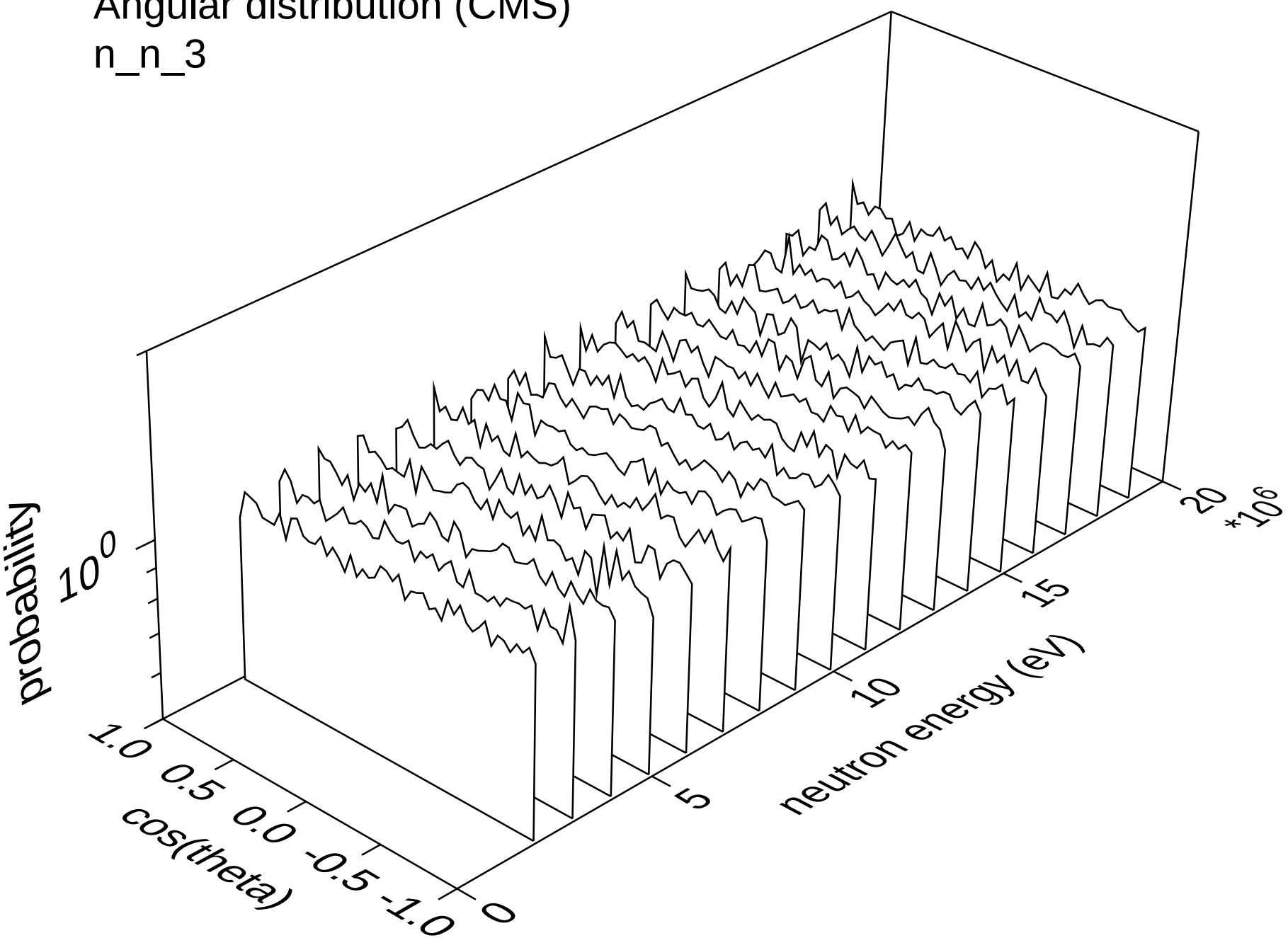

Angular distribution (LABS)
n_np
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
10
15
20
*10^6
neutron energy (eV)

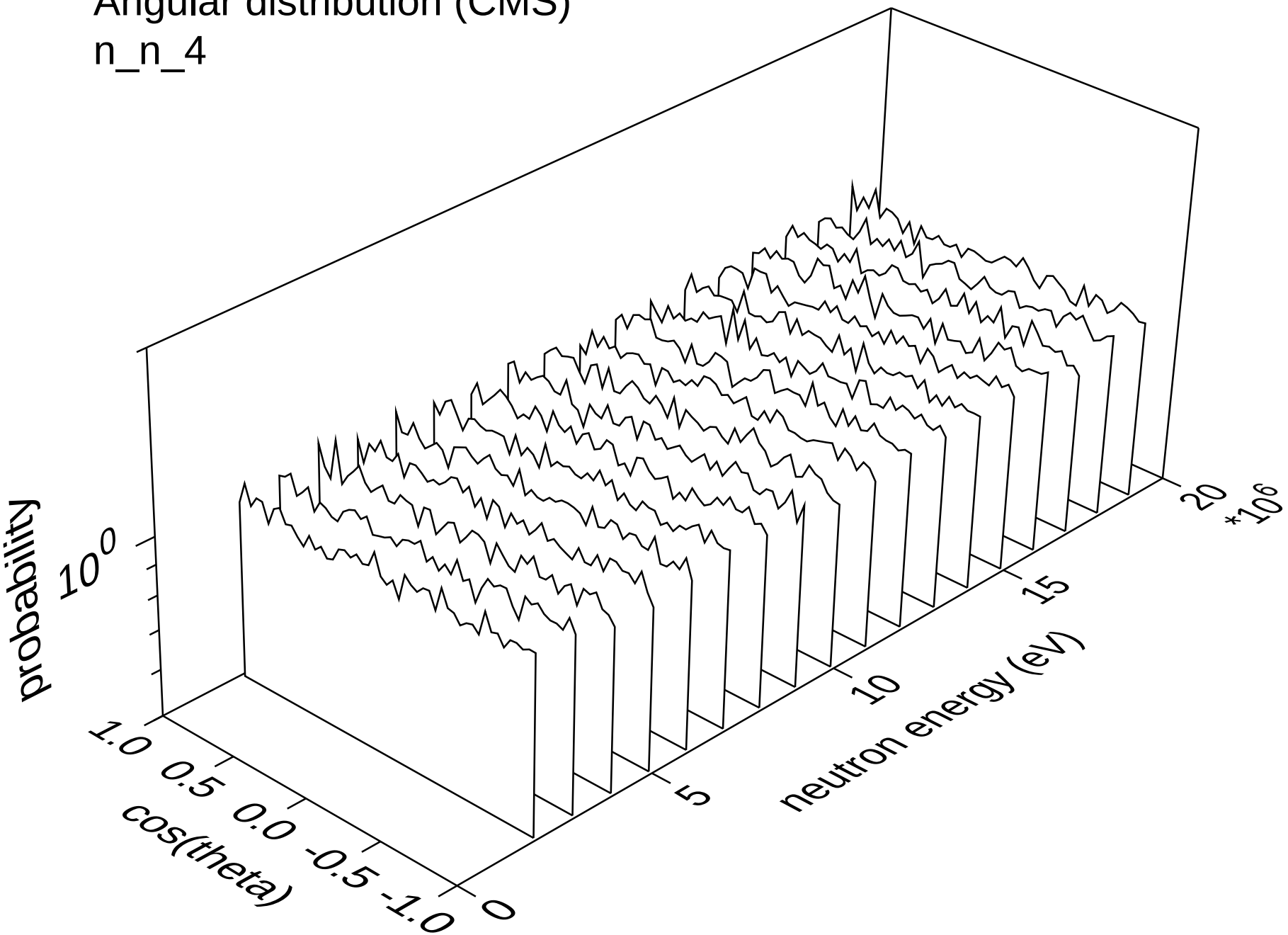

Angular distribution (LABS)
n_nd
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
17
18
19
20
*10^6
neutron energy (eV)

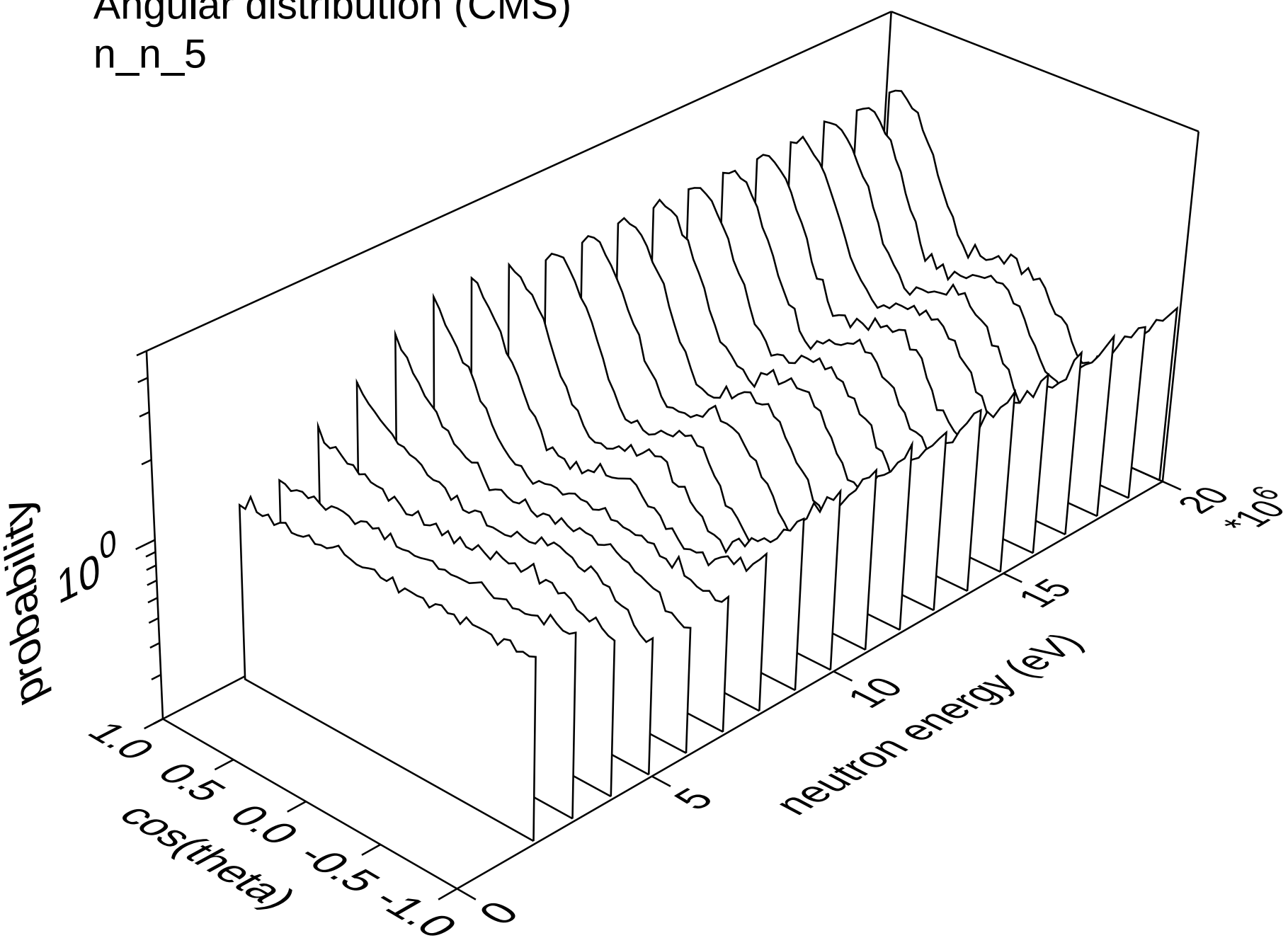

Angular distribution (LABS)
n_nt
probability
10^0
1.0 0.5 0.0 -0.5 -1.0
cos(theta)
0
40
*10^6
neutron energy (eV)

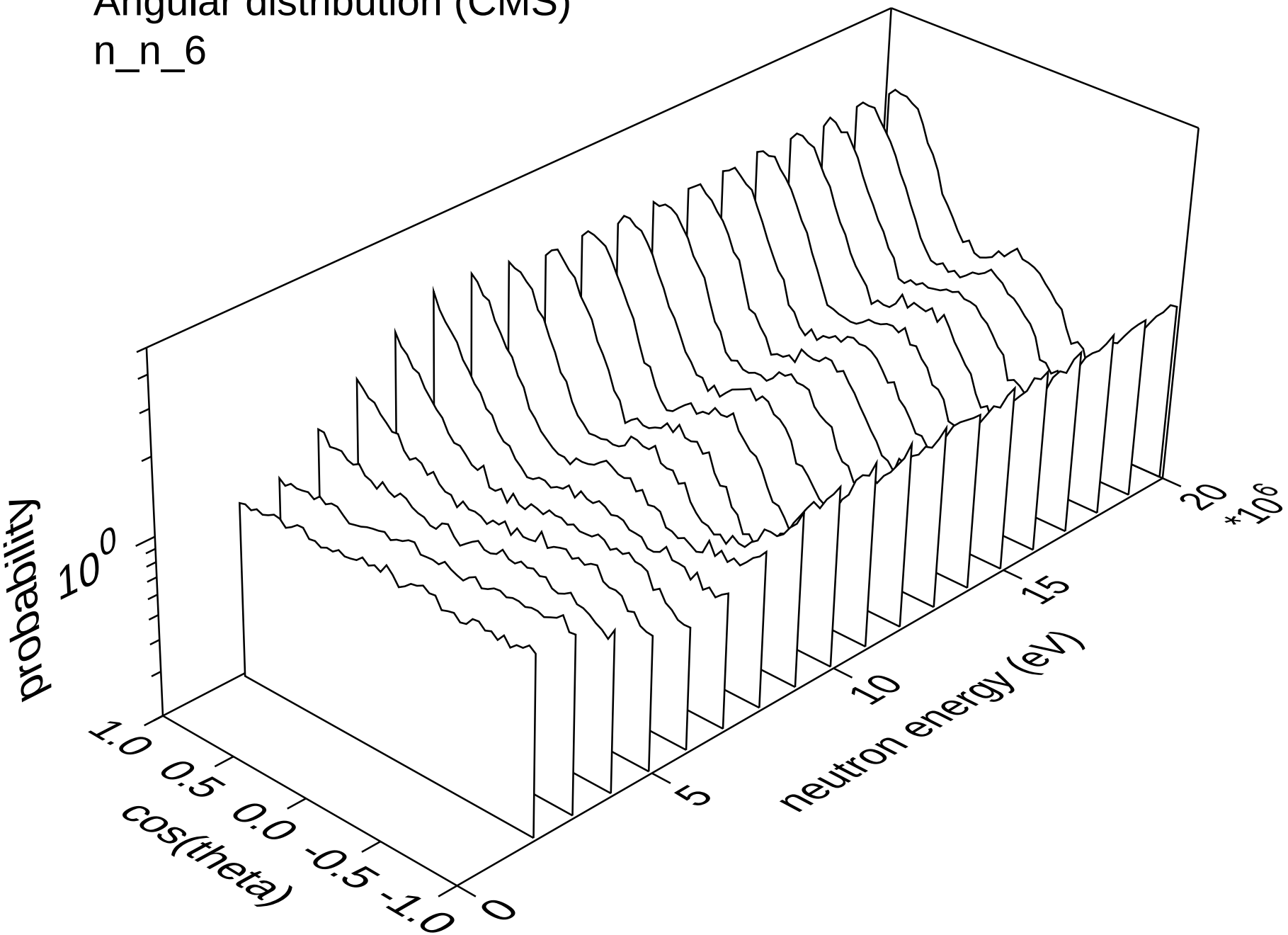

Angular distribution (CMS)
n_n_1
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

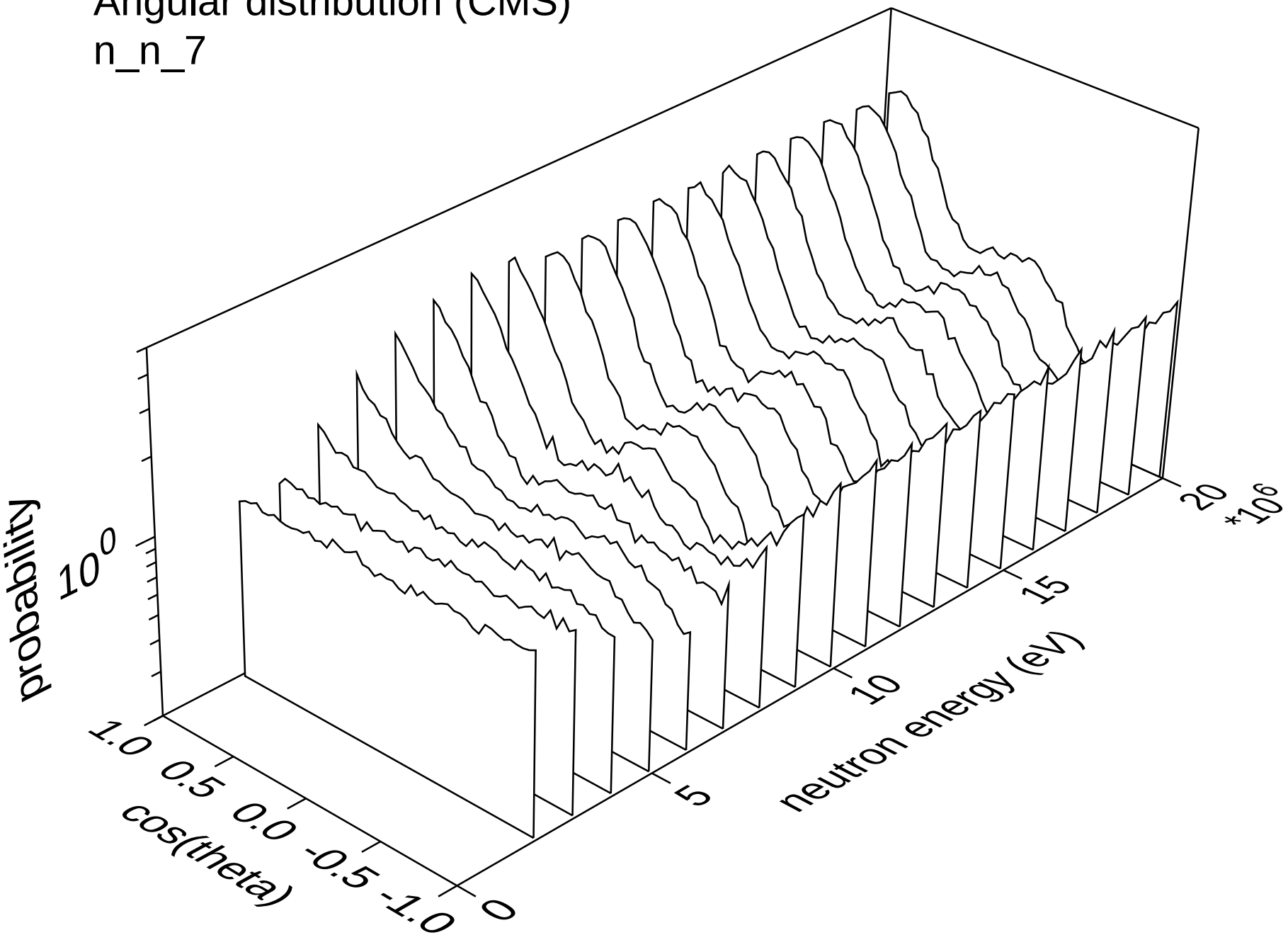

Angular distribution (CMS)
n_n_2
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

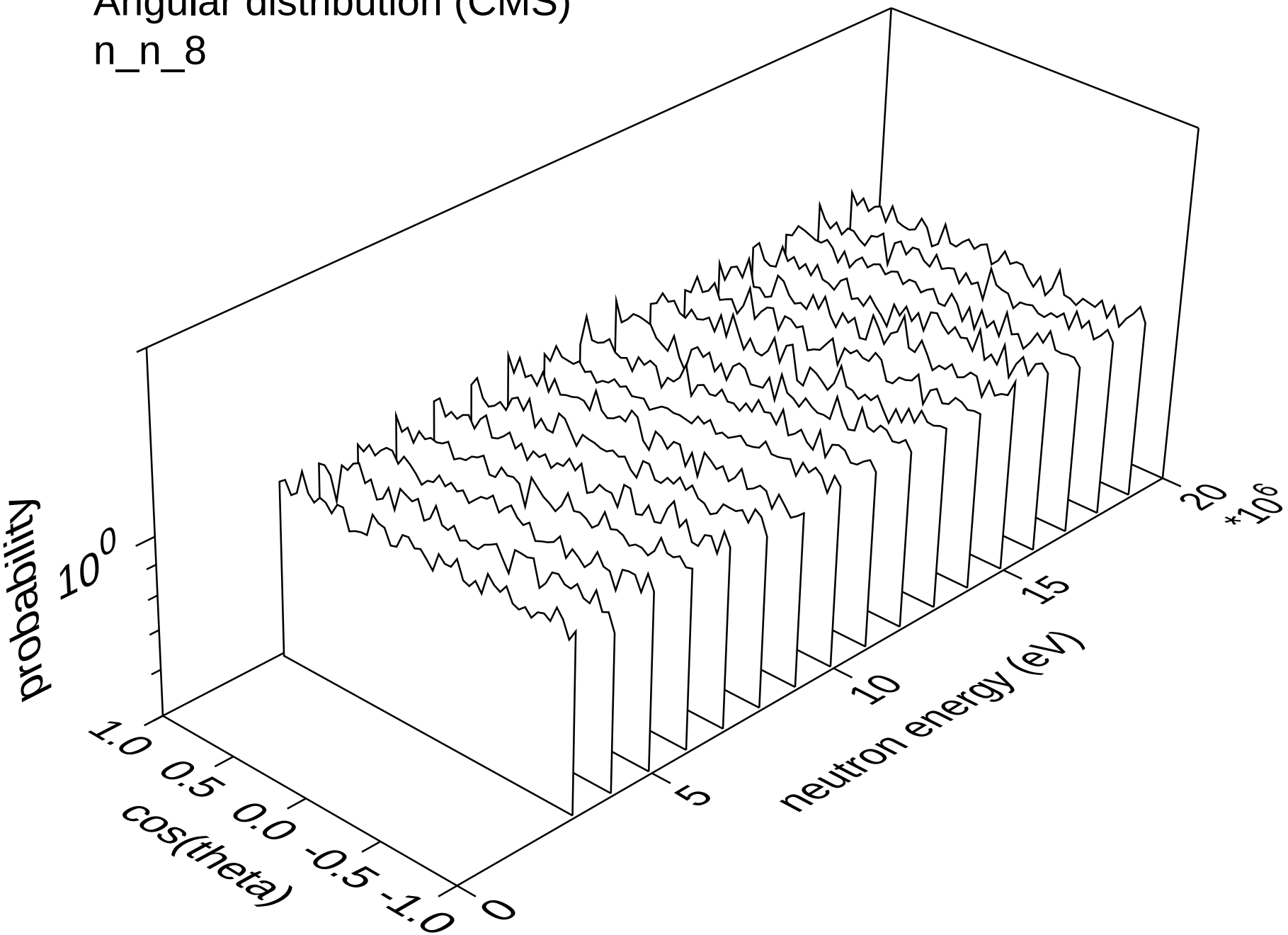

Angular distribution (CMS)
n_n_3
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

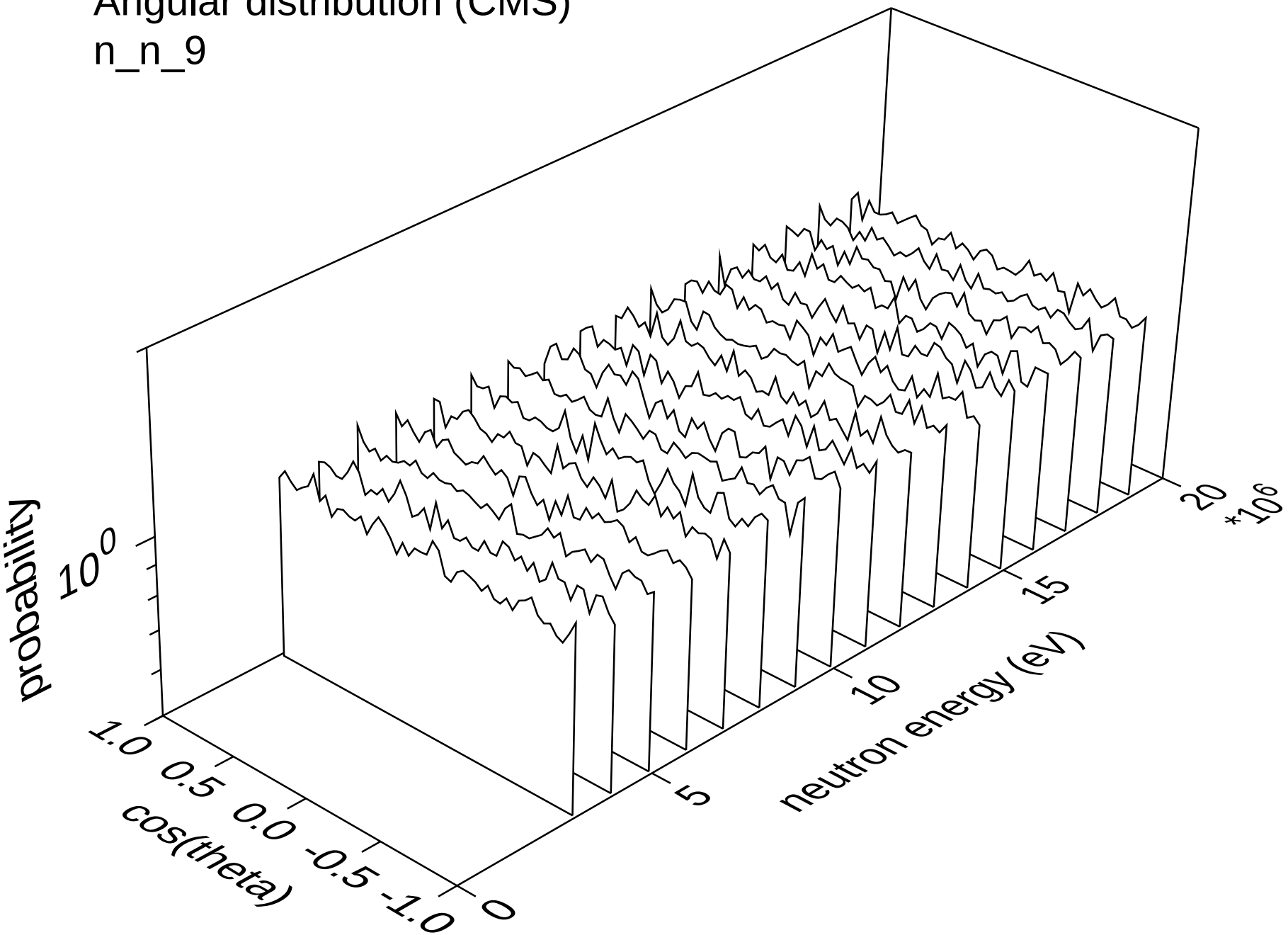

Angular distribution (CMS)
n_n_4
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

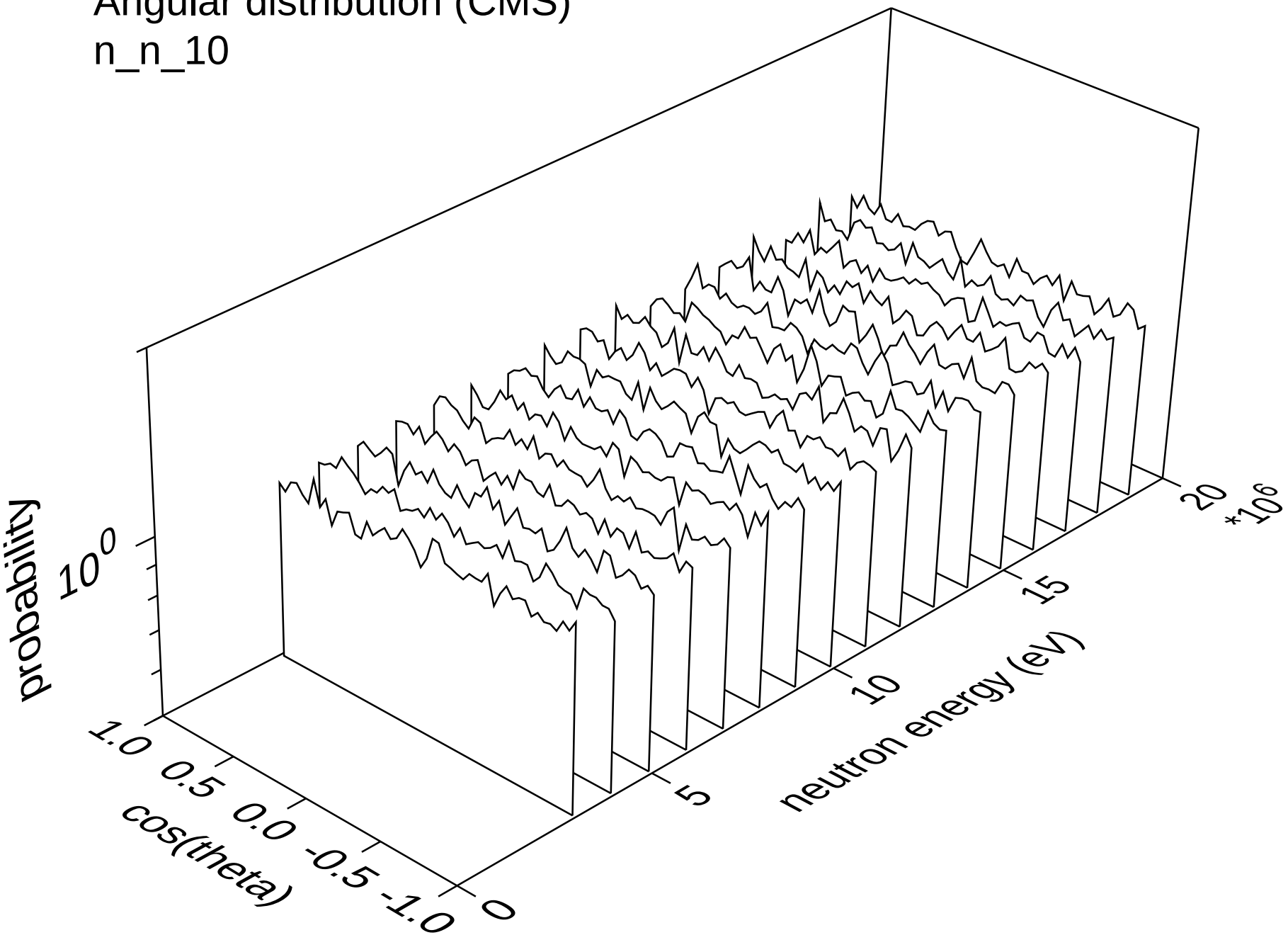

Angular distribution (CMS)
n_n_5
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

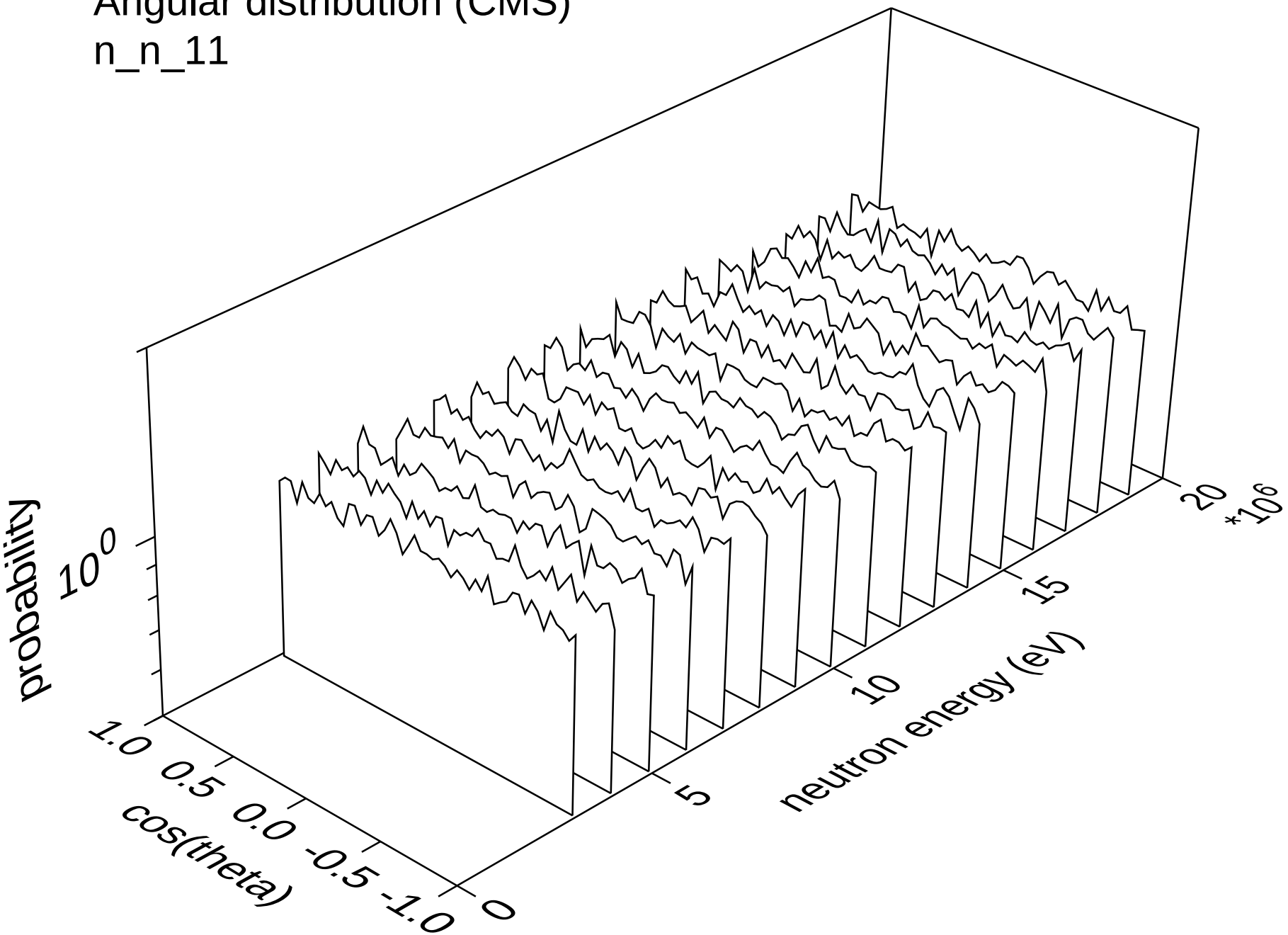

Angular distribution (CMS)
n_n_6
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

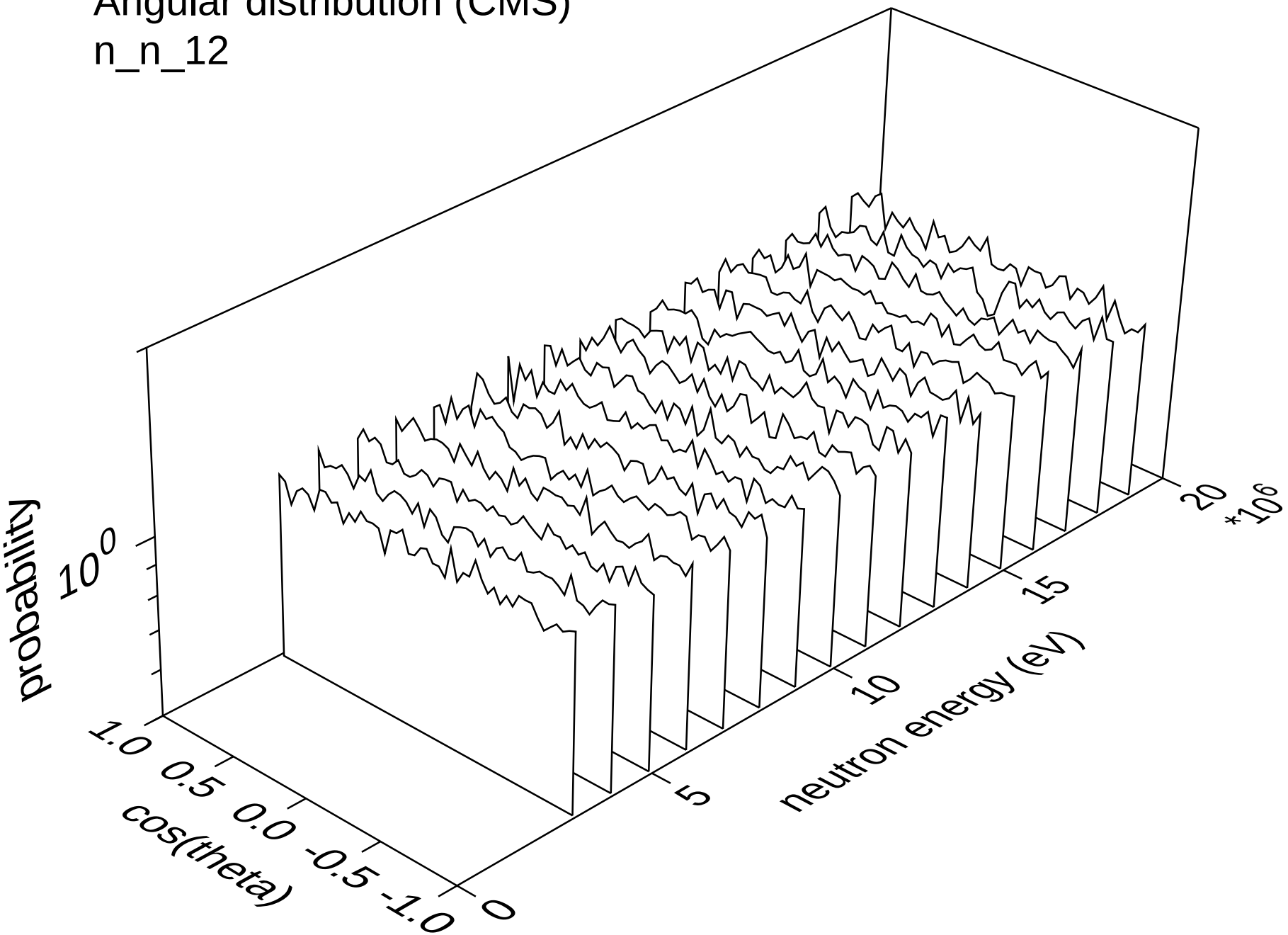

Angular distribution (CMS)
n_n_7
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

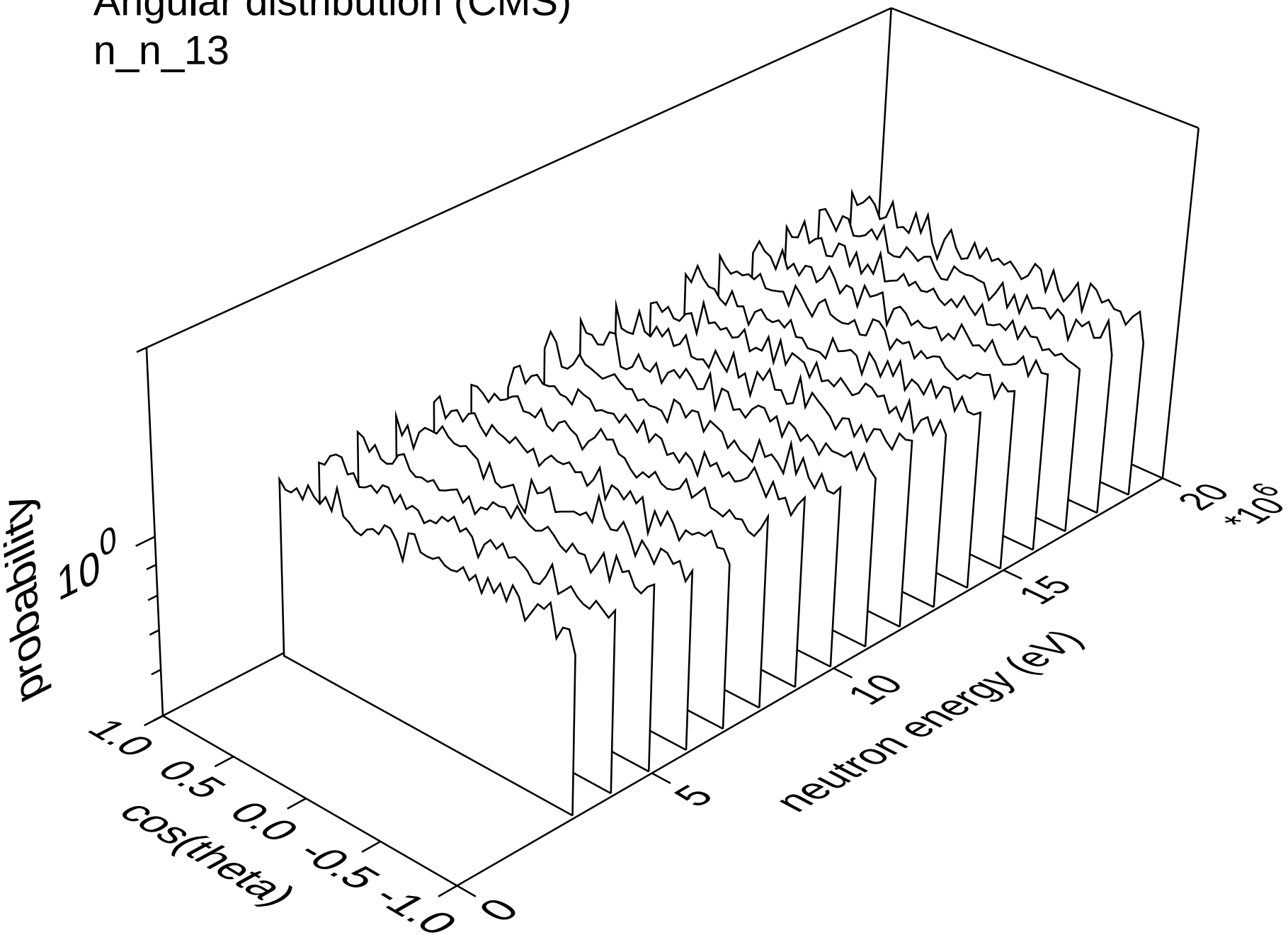

Angular distribution (CMS)
n_n_8
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

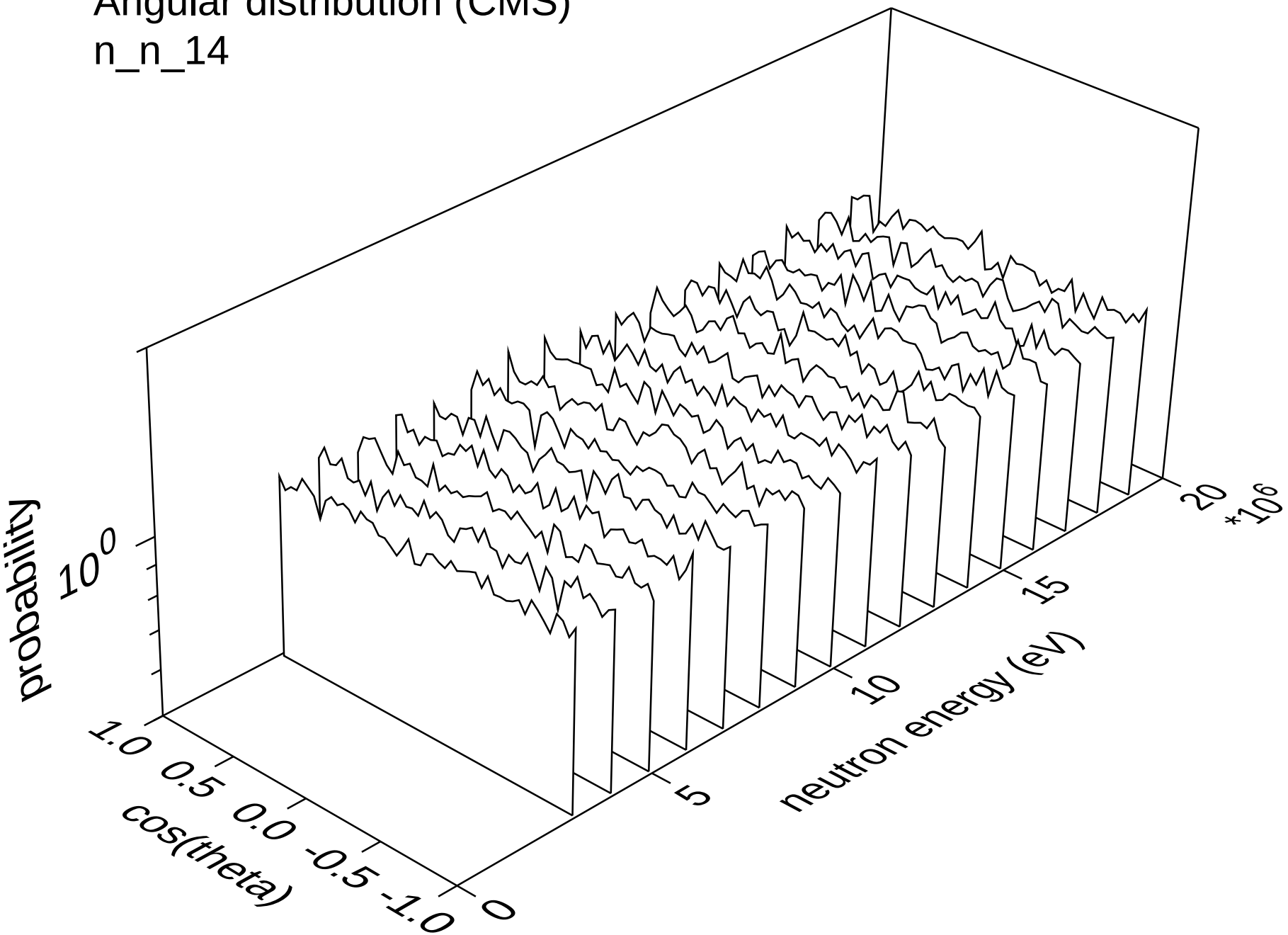

Angular distribution (CMS)
n_n_9
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

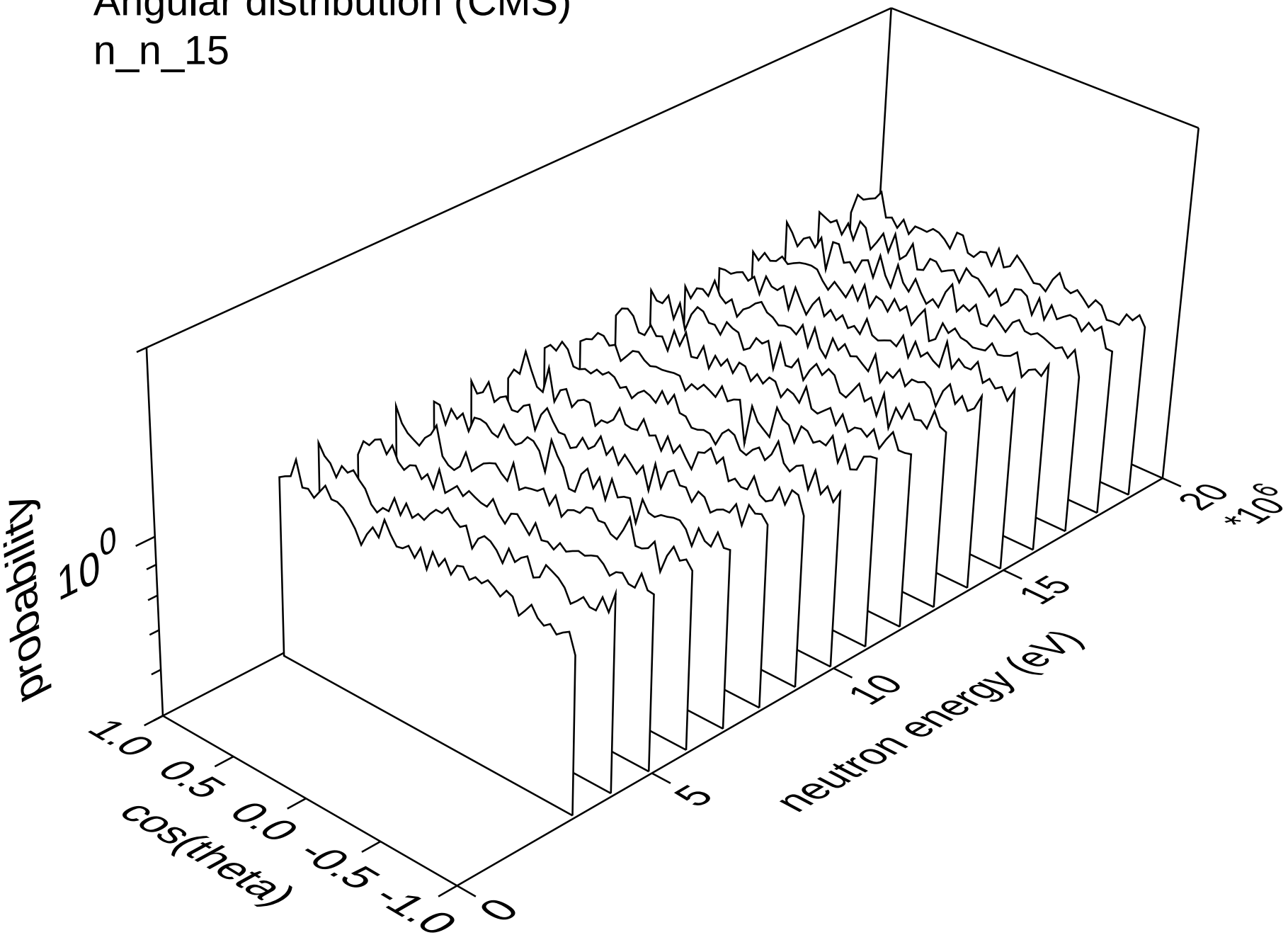

Angular distribution (CMS)
n_n_10
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

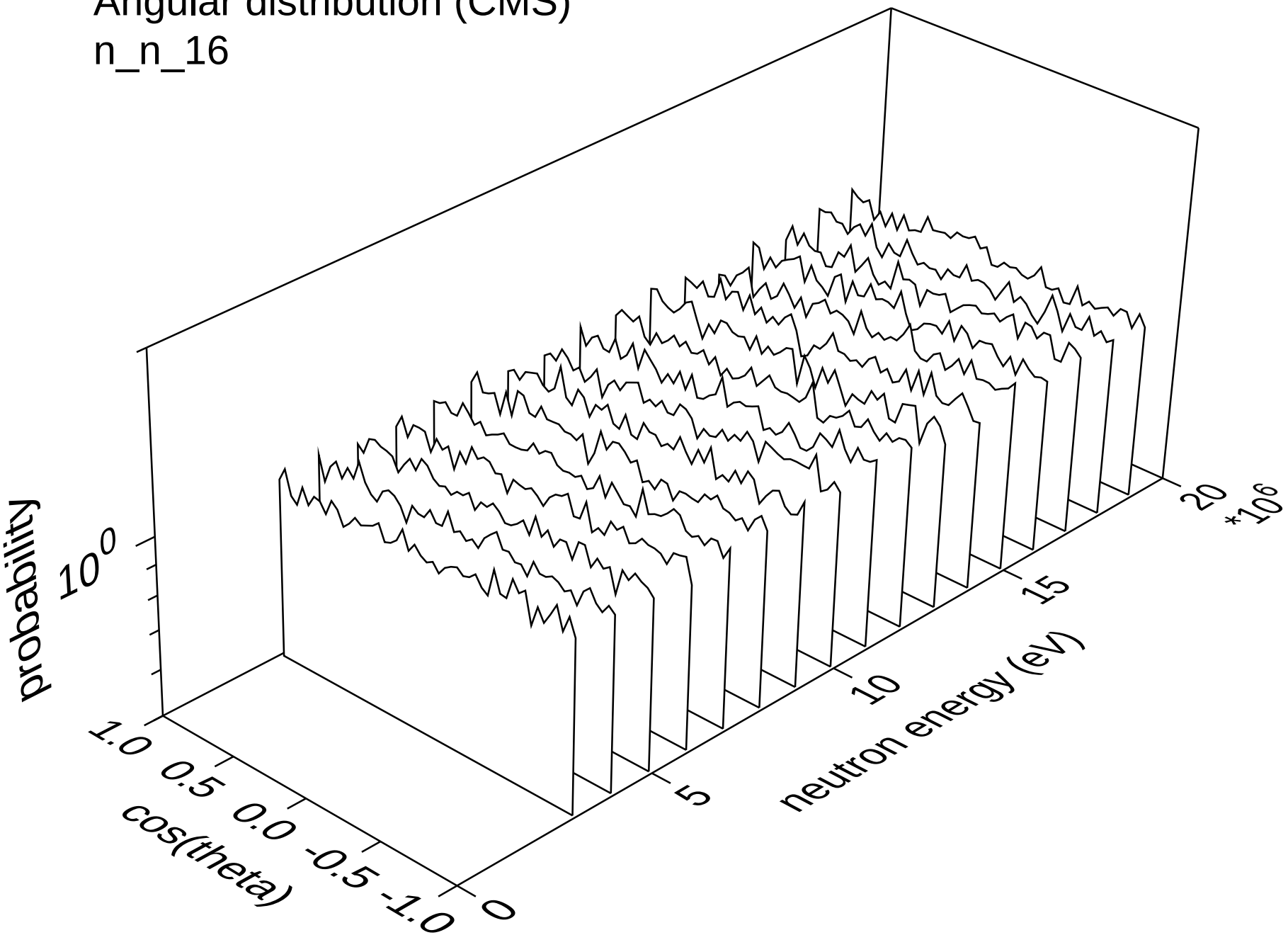

Angular distribution (CMS)
n_n_11
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

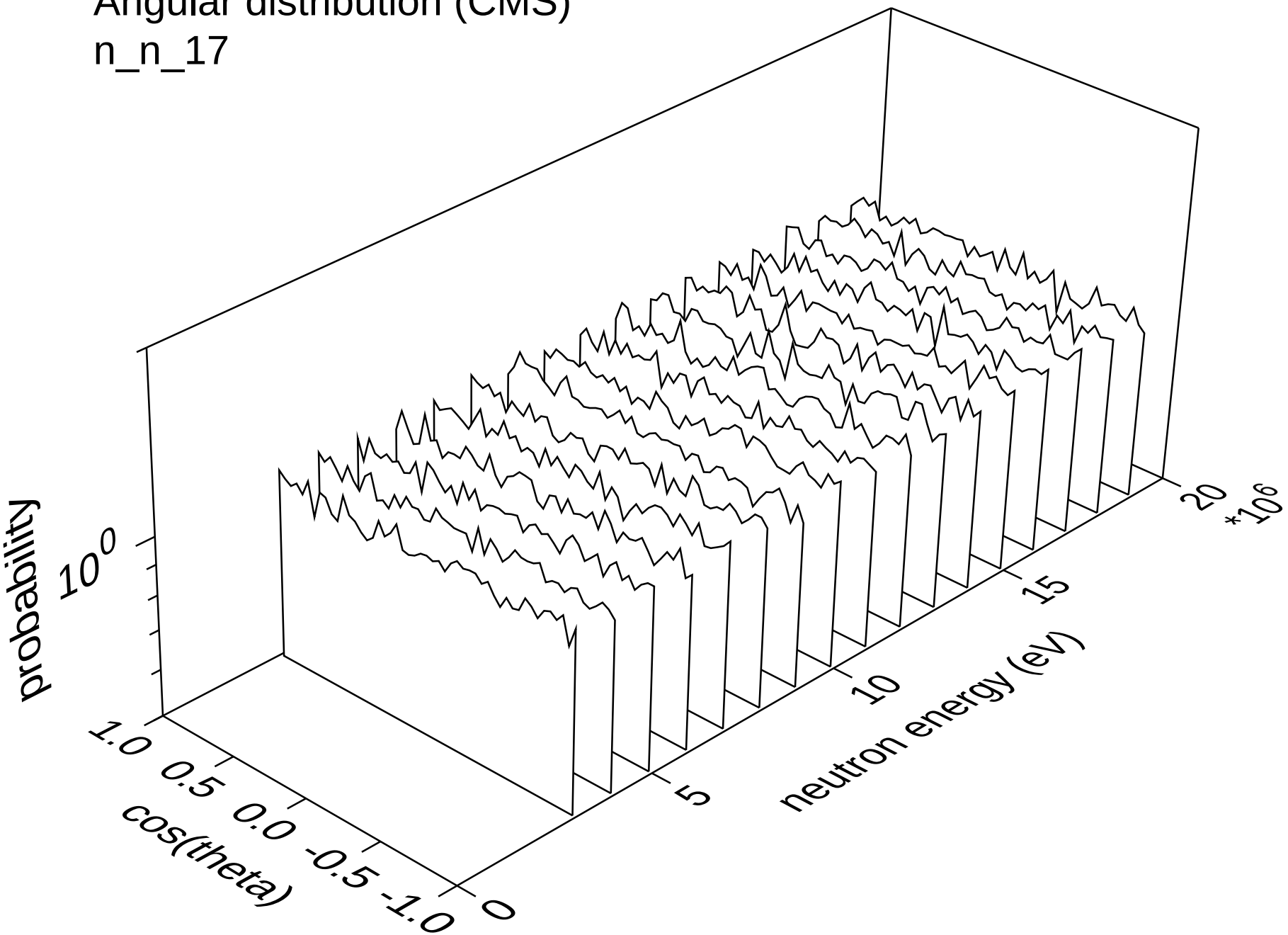

Angular distribution (CMS)
n_n_12
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

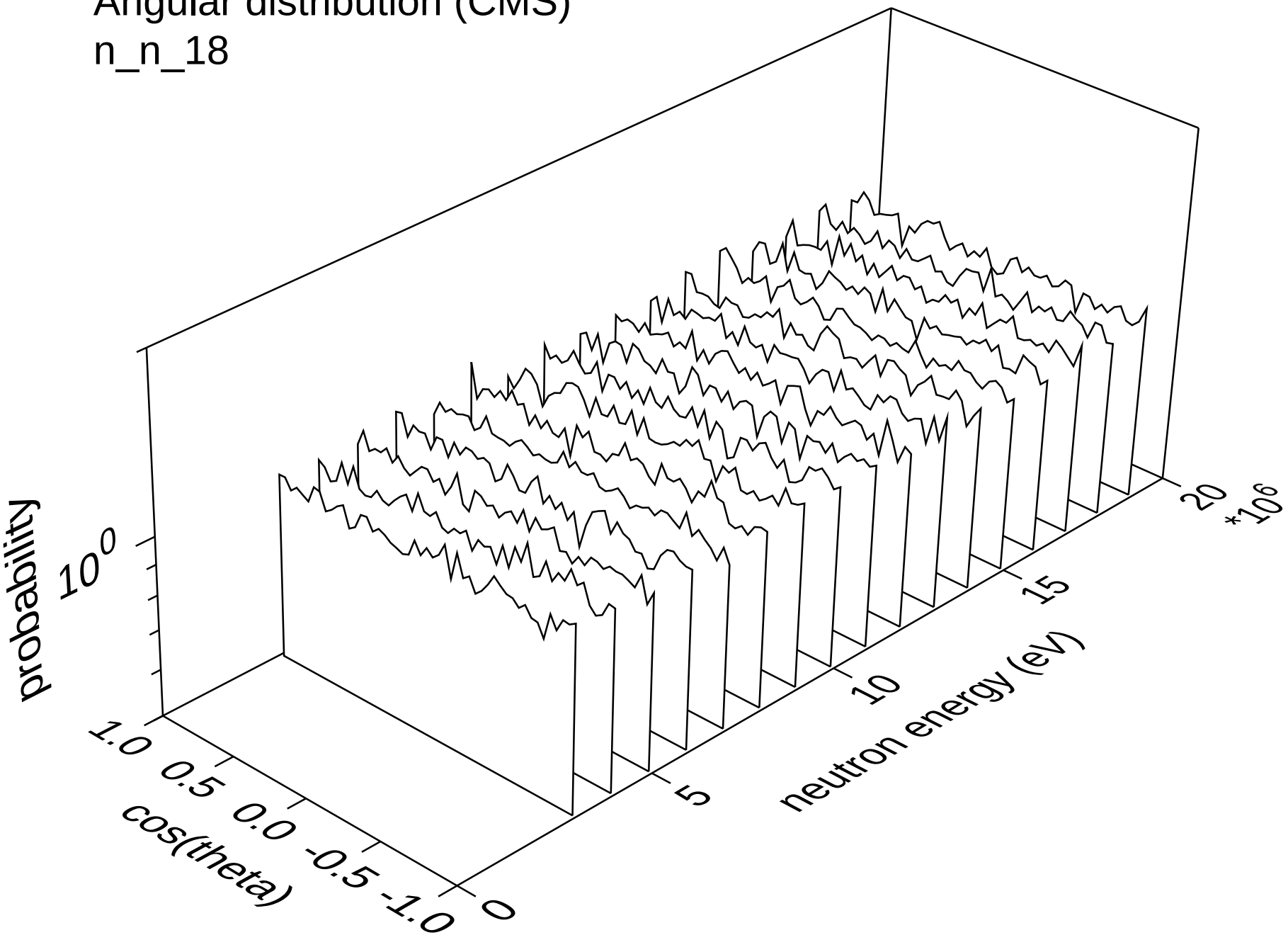

Angular distribution (CMS)
n_n_13
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

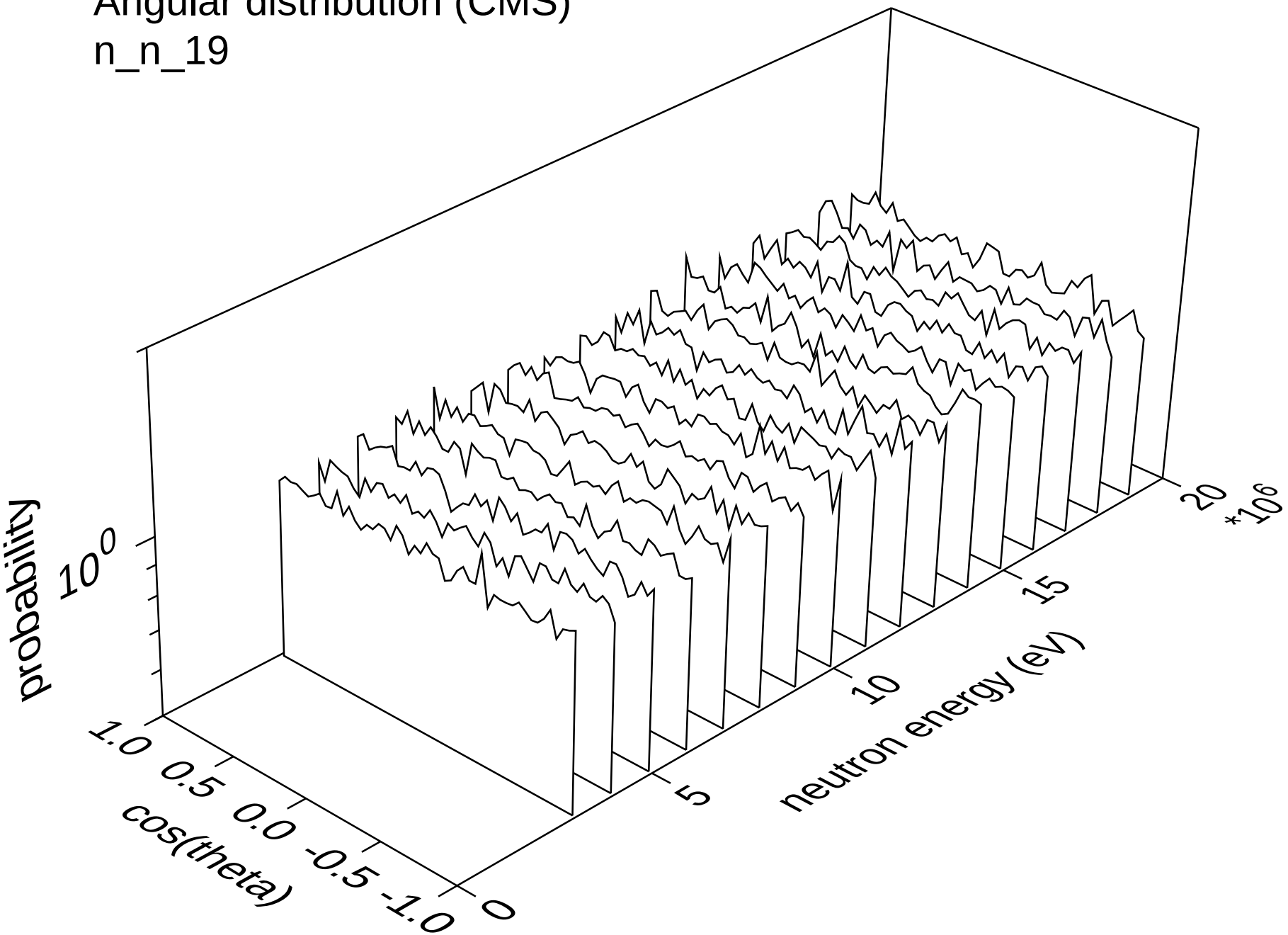

Angular distribution (CMS)
n_n_14
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

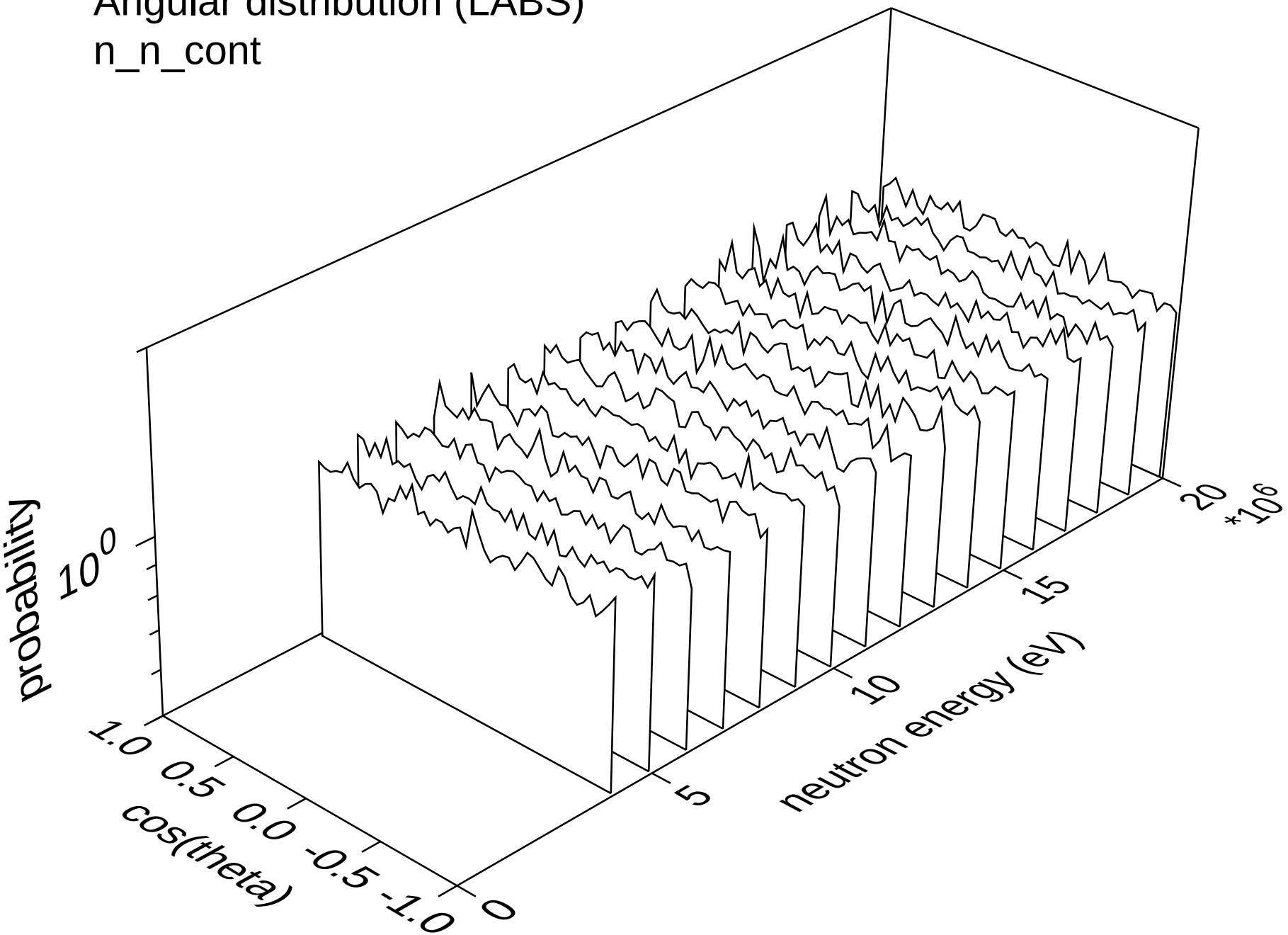

Angular distribution (CMS)
n_n_15
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

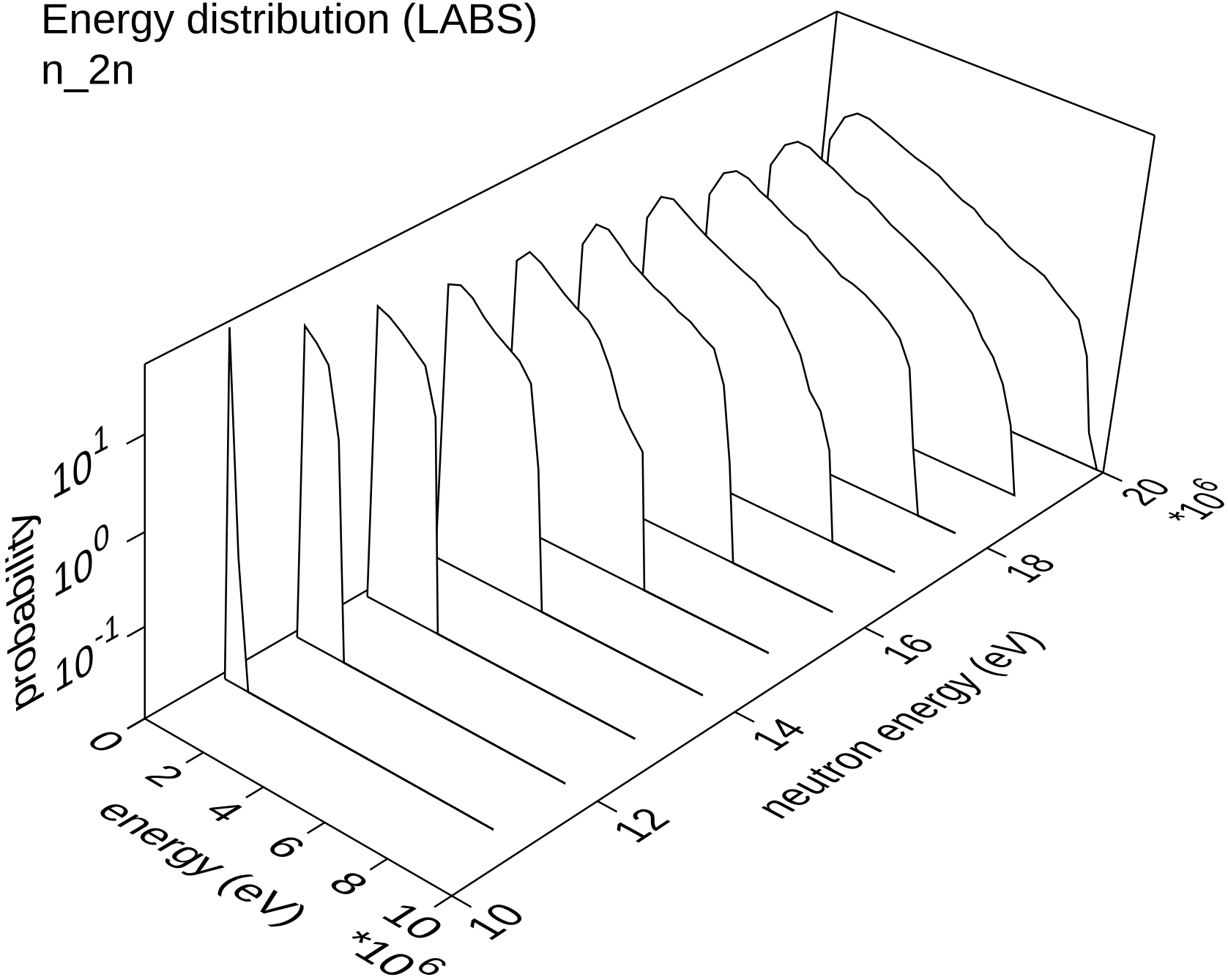

Angular distribution (CMS)
n_n_16
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

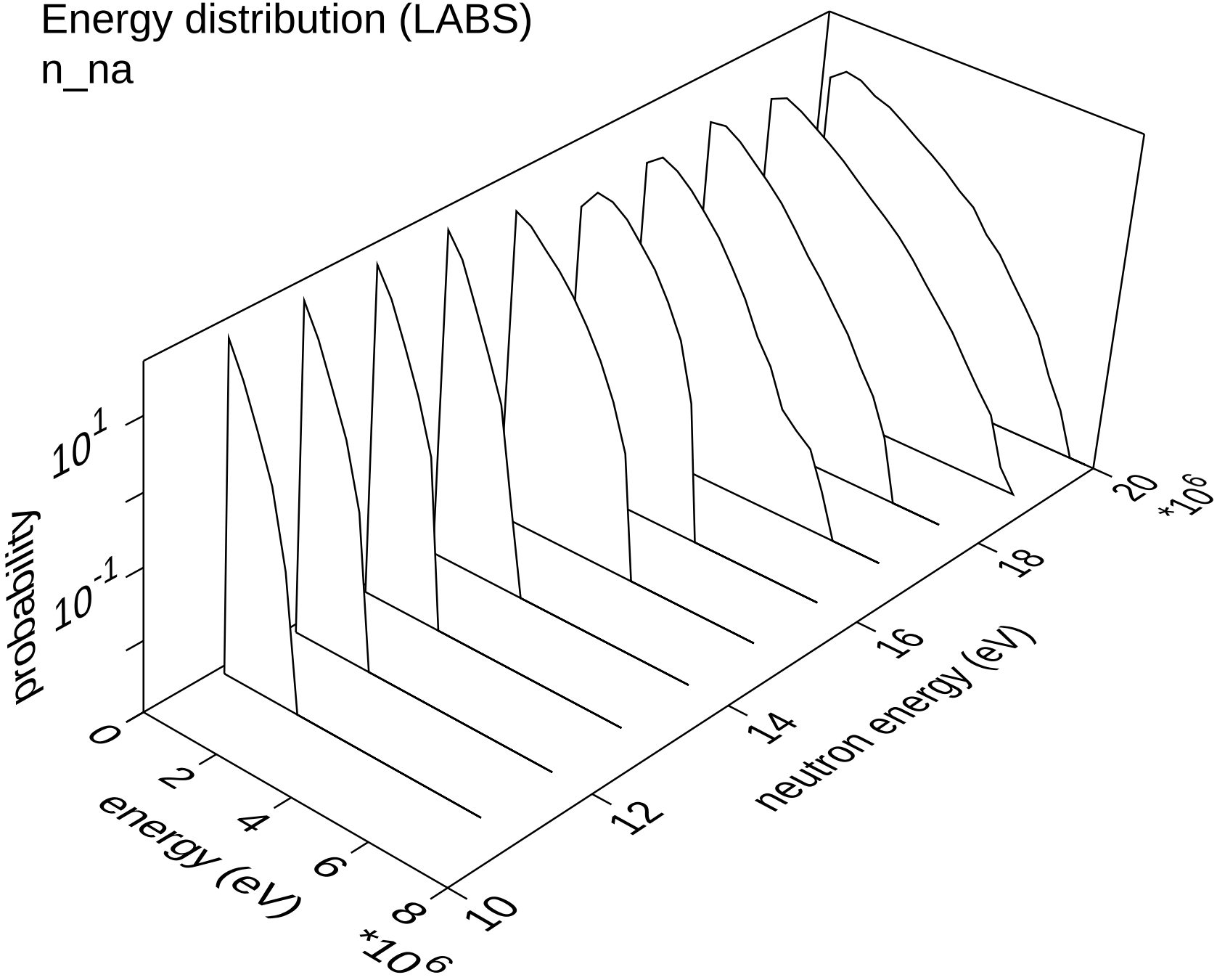

Angular distribution (CMS)
n_n_17
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

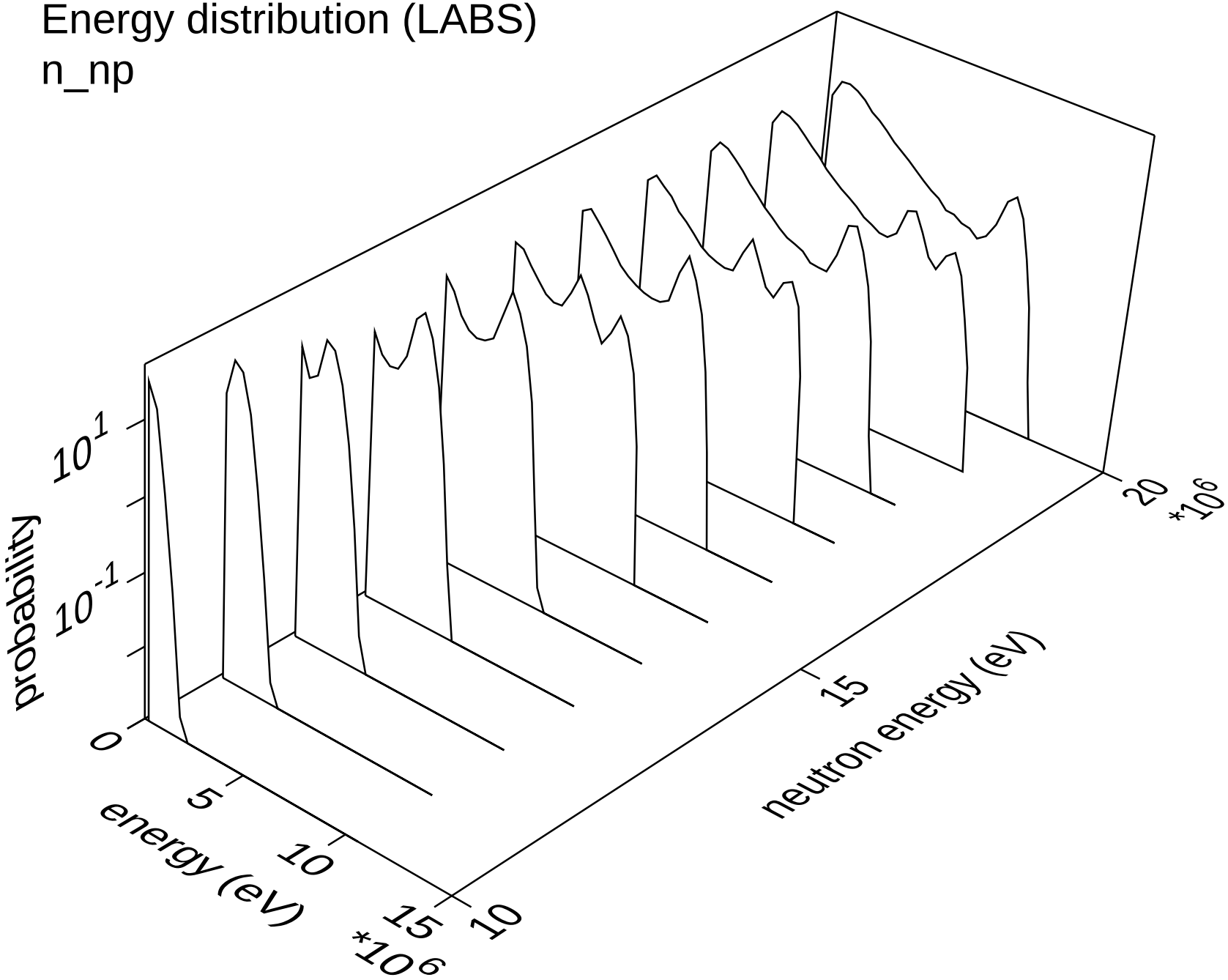

Angular distribution (CMS)
n_n_18
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

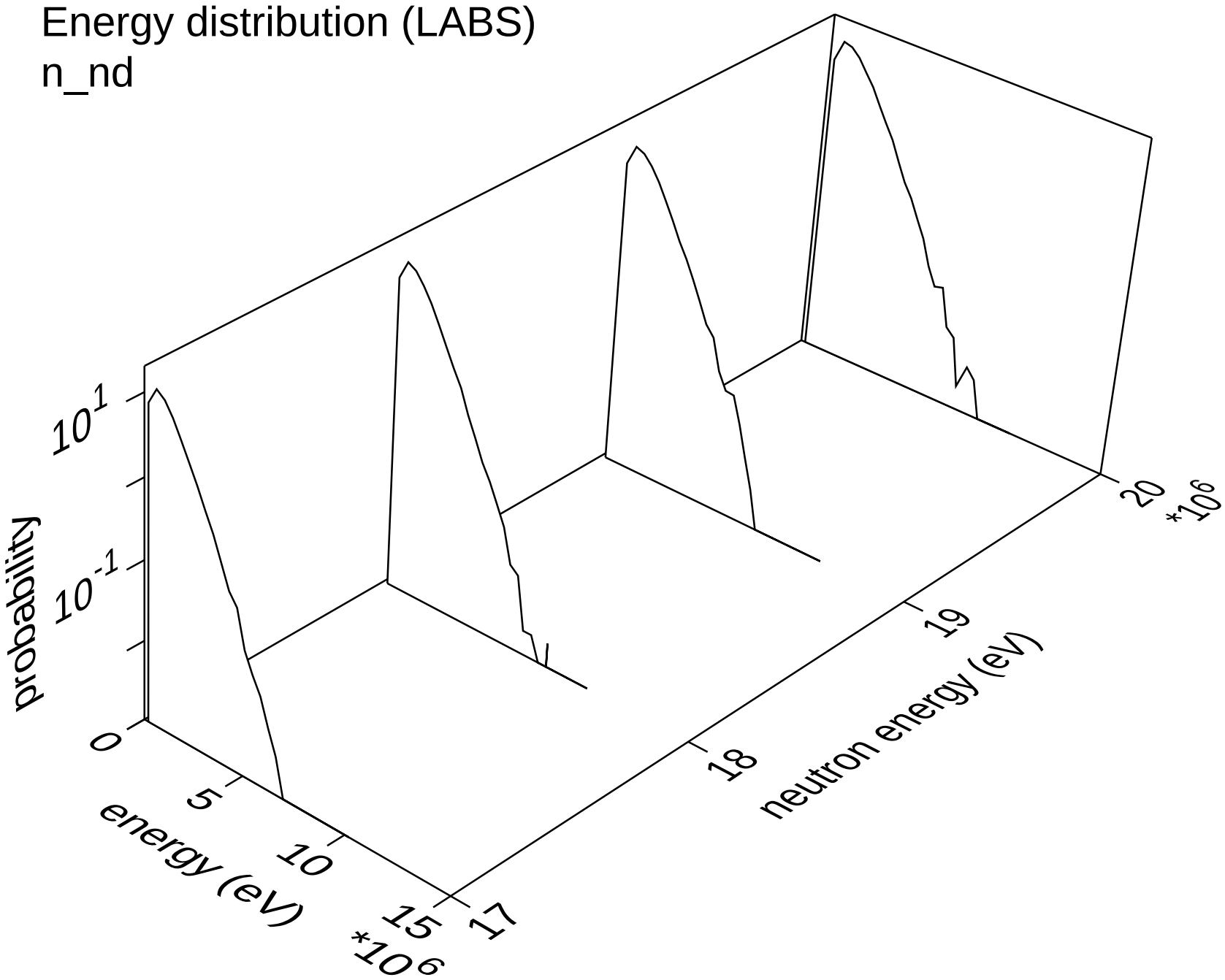

Angular distribution (CMS)
n_n_19
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

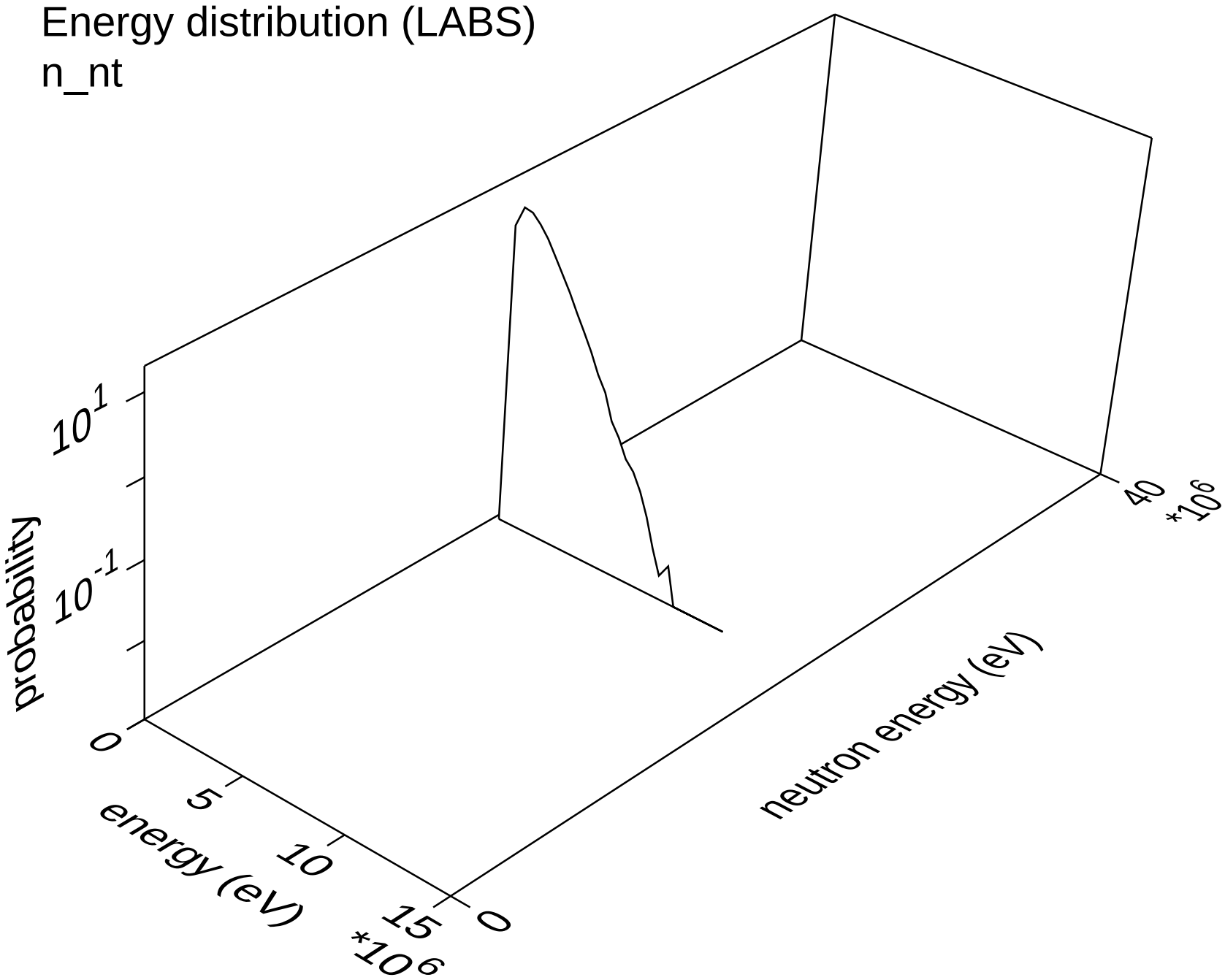

Angular distribution (LABS)
n_n_cont
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

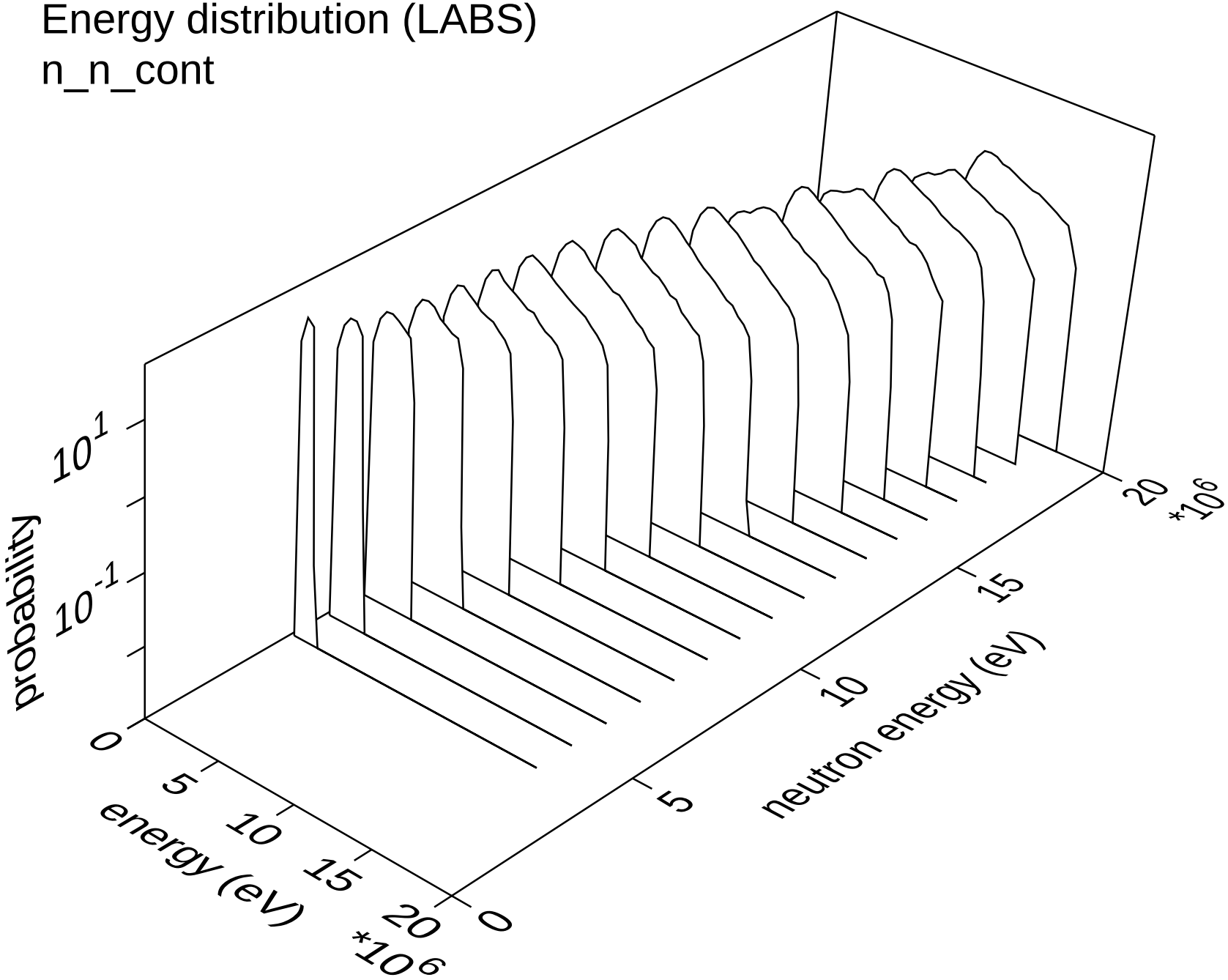

Energy distribution (LABS)
n_2n
probability
10^{1}
10^{0}
10^{-1}
0
2
4
6
8
10
energy (eV)
*10^6
10
12
14
16
18
20
neutron energy (eV)
*10^6

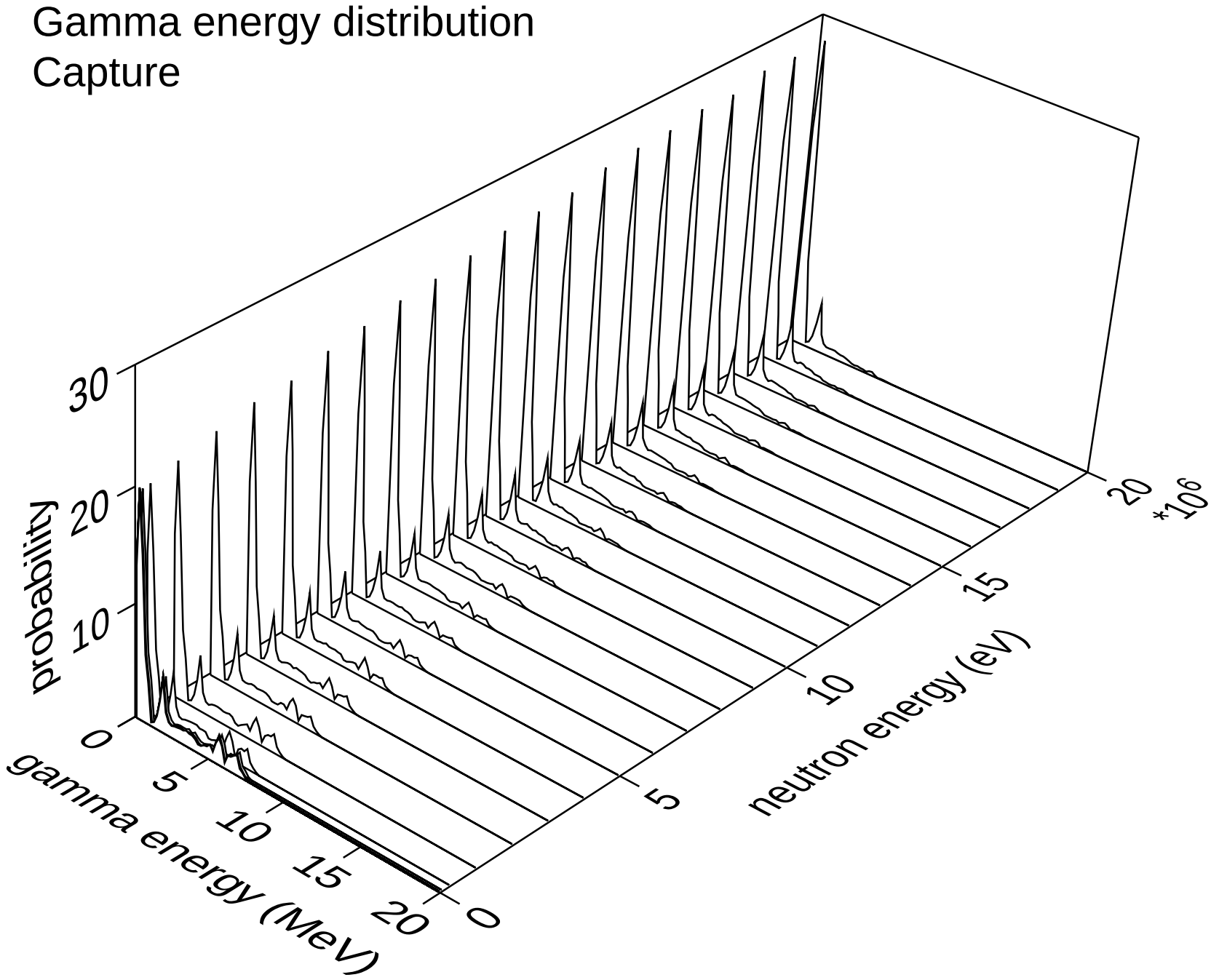

Energy distribution (LABS)
n_na
probability
10^{1}
10^{-1}
0
2
4
6
8
10
*10^6
energy (eV)
12
14
16
18
20
*10^6
neutron energy (eV)

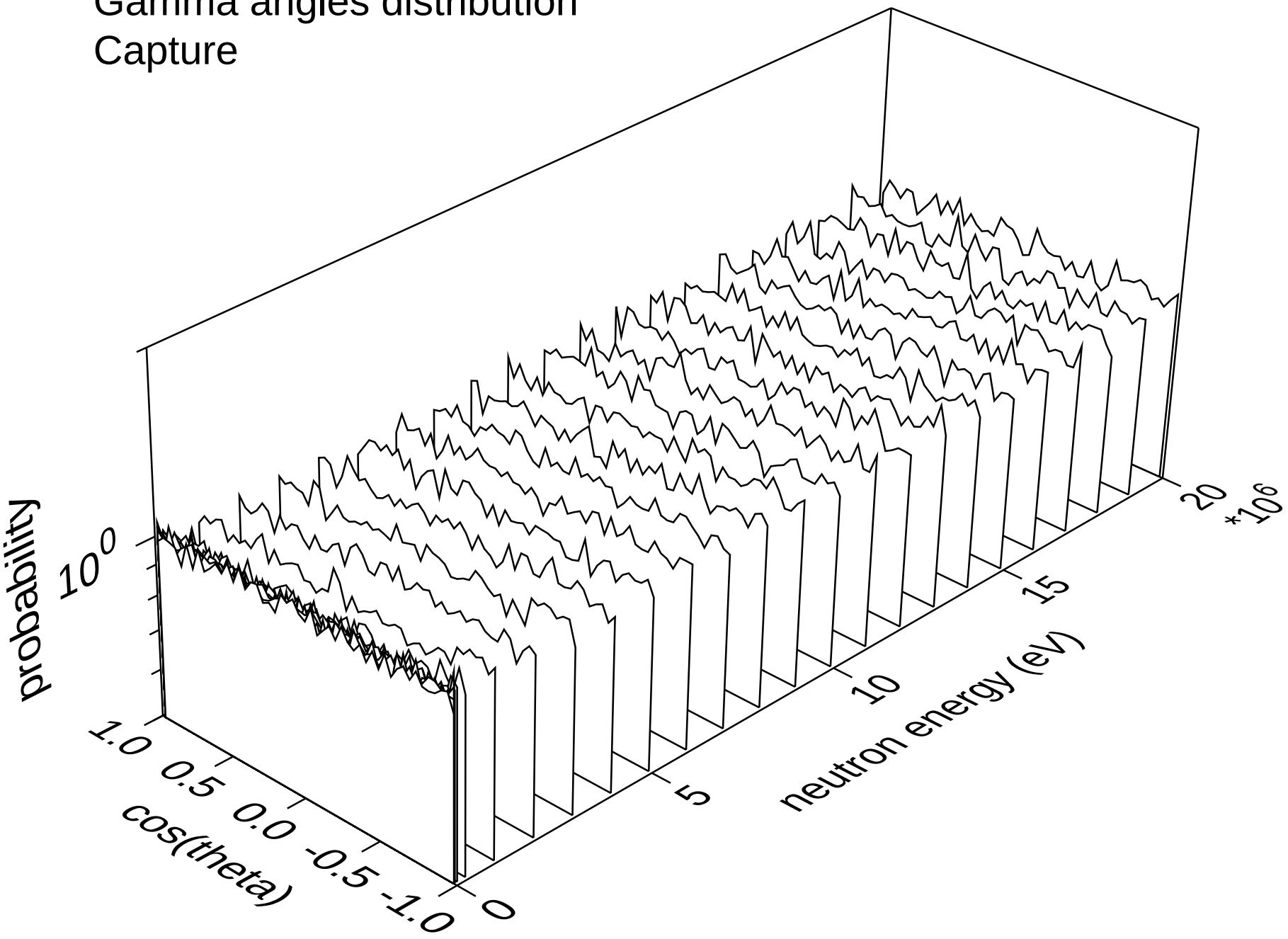
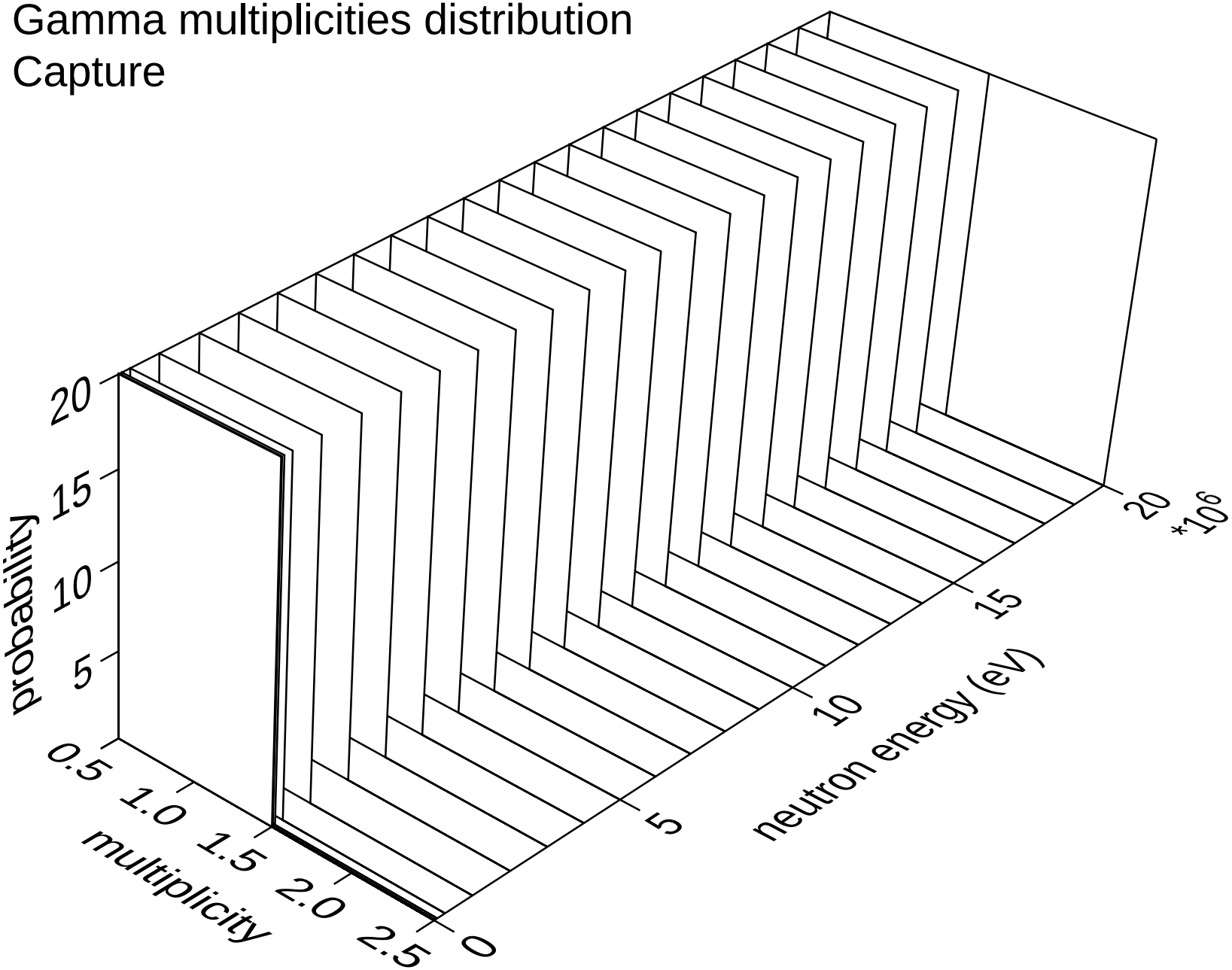

Energy distribution (LABS)
n_np
probability
10^{1}
10^{-1}
0
5
10
15
energy (eV)
*10^6
10
15
20
neutron energy (eV)
*10^6


Energy distribution (LABS)
n_nd
probability
10^{1}
10^{-1}
0
energy (eV)
5
10
15
17
*10^6
neutron energy (eV)
18
19
20
*10^6


Energy distribution (LABS)
n_nt
probability
10^{1}
10^{-1}
0
5
10
15
energy (eV)
*10^6
0
40
*10^6
neutron energy (eV)


Energy distribution (LABS)
n_n_cont
probability
10^{1}
10^{-1}
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)


Gamma energy distribution
Capture
probability
30
20
10
0
gamma energy (MeV)
0
5
10
15
20
neutron energy (eV)
0
5
10
15
20
*10^6


Gamma angles distribution
Capture
probability
10^0
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

Gamma multiplicities distribution
Capture